#2

Access DB# 201297

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: _____ Date: 9-11-2006
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/743,441
Mail Box and Bldg/Room Location: 9c15 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

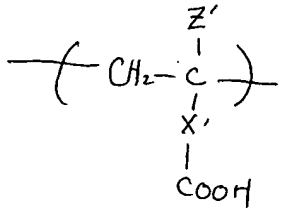
Title of Invention: Plz. see Bib

Inventors (please provide full names): _____

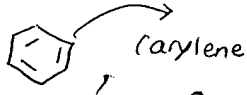
Earliest Priority Filing Date: _____

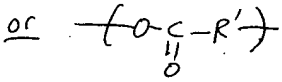
**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a polymer of cl. #1 having the following repeating unit:



(Z' = H or alkyl)

Y' =  (arylene gp.),

or  ,

or $-(Ar-R')-$.

(Ar = arylene
R' = divalent connecting gp.)

****

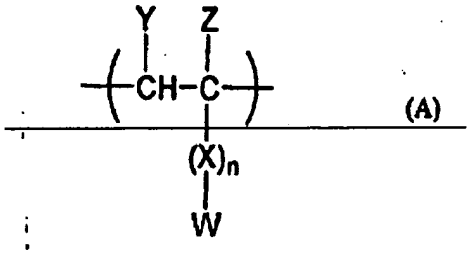
STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: Ed	NA Sequence (#)		STN	
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 9-13-06	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

AMENDMENTS TO THE CLAIMS

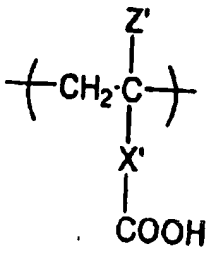
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A heat-sensitive lithographic printing plate precursor comprising a support having thereon two image-forming layers each containing a polymer insoluble in water and soluble in an aqueous alkaline solution, wherein an upper layer of the image-forming layers contains a copolymer including a monomer unit represented by formula ~~(A)~~(A') shown below,

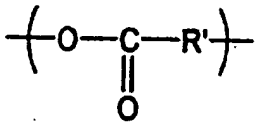


~~wherein W represents a carboxy group, X represents a divalent connecting group, Y represents a hydrogen atom or a carboxy group, Z represents a hydrogen atom, an alkyl group or a carboxy group, or W and Z or Y and Z may be combined with each other to from an acid anhydride group of -(CO)-O-(CO)-, and n represents 0 or 1~~

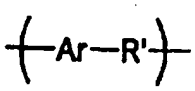


(A')

wherein Z' represents a hydrogen atom or an alkyl group, and X' represents an arylene group, which may have a substituent, or one of the structures represented by formulae (X2) and (X3) shown below,



(X2)



(X3)

wherein Ar represents an arylene group, which may have a substituent, and R' represents a divalent connecting group.

Claim 2. (canceled).

3. (original): The heat-sensitive lithographic printing plate precursor as claimed in Claim 1, wherein the copolymer further contains a monomer unit derived from a monomer selected from a (meth)acrylate, a (meth)acrylamide derivative and a styrene derivative.

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BIBDATASHEET

CONFIRMATION NO. 1762

Bib Data Sheet

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/743,441	12/23/2003 RULE	430	1752	Q79134

APPLICANTS

Ikuo Kawauchi, Shizuoka, JAPAN;

Ippei Nakamura, Shizuoka, JAPAN;
Mitsumasa Tsuchiya, Shizuoka, JAPAN;

** CONTINUING DATA **********

None SJL

Fuji

** FOREIGN APPLICATIONS **********

JAPAN P.2002-382231 12/27/2002
JAPAN P.2003-020750 01/29/2003) SJL

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
** 04/03/2004

Foreign Priority claimed	STATE OR	SHEETS	TOTAL	INDEPENDENT
☑ yes ☐ no	COUNTRY	DRAWING	CLAIMS	CLAIMS
35 USC 119 (a-d) conditions met ☐ yes ☐ no ☐ Met after Allowance	JAPAN	0	5	1
Verified and Acknowledged Examiner's Signature Initials SJL				

ADDRESS
23373
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON , DC
20037

TITLE
Heat-sensitive lithographic printing plate precursor

FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time)

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> D HIS

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L2        107488 S NAKAMURA ?/AU
L3         15009 S TSUCHIYA ?/AU
L4             4 S L1 AND L2 AND L3
                 SEL L4 1-4 RN

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L6        327026 S E3
L7            70 S L5 AND L6
L8            70 S L7 AND ACID

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L9               STR

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L11             SCR 2043
L12           5 S L9 AND L11

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L22         845 S L15
L23      114389 S LITHO? OR PHOTOLITHO?
L24       18514 S PRINT?(2A)(PLATE OR PLATES)
L25       35393 S (HEAT? OR IR OR I(W)R OR INFRARED? OR INFRA(A)(RED OR R
L26          13 S L21 AND L23
L27         262 S L22 AND L23
L28           4 S L21 AND L24
L29         173 S L22 AND L24
L30          32 S (L27 OR L29) AND L25
L31          15 S L26 OR L28
L32          30 S L30 NOT L31
L33          14 S L31 AND 1840-2002/PRY,PY
L34          12 S L32 AND 1840-2002/PRY,PY

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L37           7 S L36 AND (L23 OR L24 OR L25)
L38           4 S L37 AND 1840-2002/PRY,PY
L39          18 S L38 OR L33
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L13             STR
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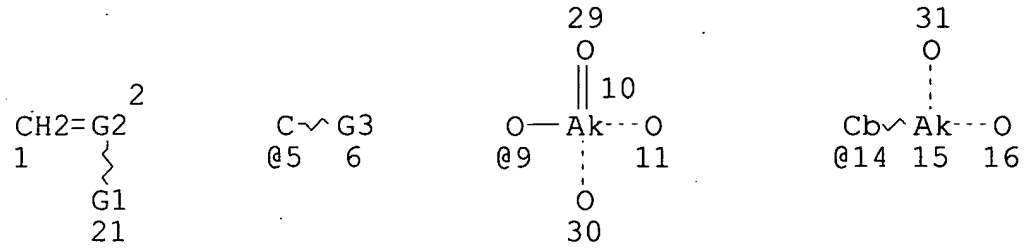

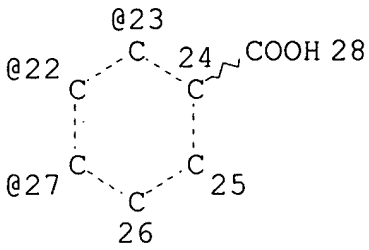

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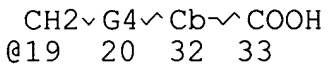

Page 1-B

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GGCAT IS UNS AT 14
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GGCAT IS UNS AT 32
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
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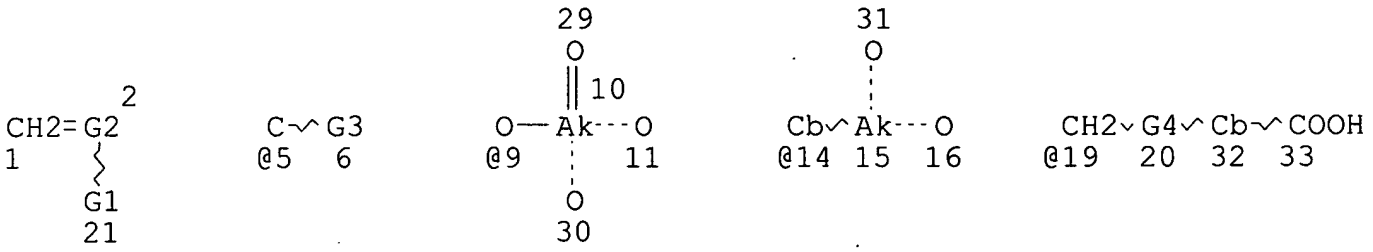
L18 STR



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VAR G2=CH/5
VAR G3=ME/ET/N-PR/I-PR/N-BU/I-BU/S-BU/T-BU
REP G4=(0-5) CH2
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DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 10
GGCAT IS UNS AT 14
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DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2 C AT 15

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RSPEC I
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE
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=> D L39 1-18 CBIB ABS HITSTR HITIND

L39 ANSWER 1 OF 18 HCA COPYRIGHT 2006 ACS on STN
141:148156 Method for making **lithographic printing plates** by direct IR-imaging process. Kawauchi, Ikuo;

Nagase, Hiroyuki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004212649 A2 20040729, 37 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-382229 20021227.

AB The title method includes the steps of: imagewise exposing a **printing plate** precursor having an image-forming layer on a support; and developing the image with an alkali developer, wherein the image-forming layer contains a copolymer of CH2=C(R)(-X-COOH) (R = H, alkyl; X = arylene) and wherein the developer contains an anionic surfactant having sulfonium groups. The method uses decreased exposure energy and generates little residue film in the development.

IT **188601-29-8P 604813-16-3P 604813-18-5P 604813-19-6P 604813-23-2P**
(copolymer; light-sensitive layer of **lithog.** **printing plate** precursors)

RN 188601-29-8 HCA

CN Benzoic acid, 4-ethenyl-, polymer with ethenylmethylbenzene (9CI) (CA INDEX NAME)

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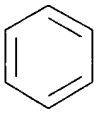
CRN 25013-15-4
CMF C9 H10
CCI IDS

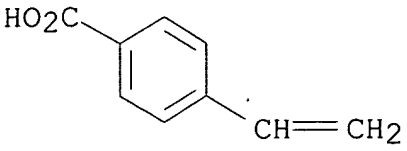


D1—Me

D1—CH═CH2

CM 2

CRN 1075-49-6
CMF C9 H8 O2



RN 604813-16-3 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 4-ethenyl-1,1'-biphenyl (9CI) (CA INDEX NAME)

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CRN 2350-89-2
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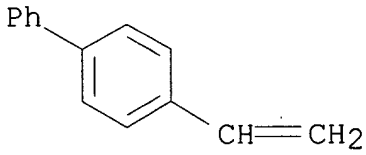

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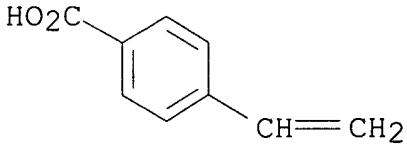

RN 604813-18-5 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethylethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

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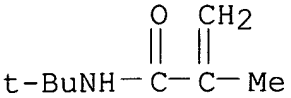

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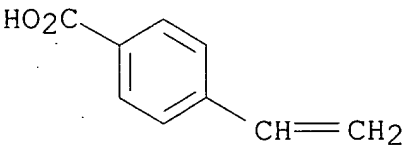

RN 604813-19-6 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethyl-3-oxobutyl)-2-propenamide (9CI) (CA INDEX NAME)

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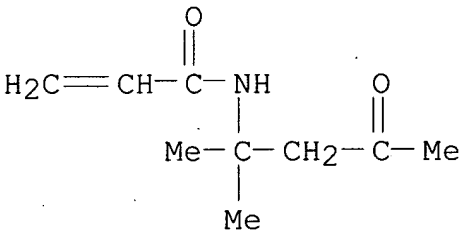

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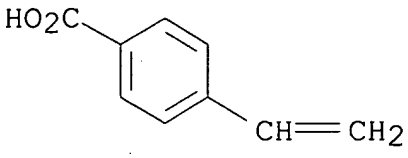

RN 604813-23-2 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 1-bromo-4-ethenylbenzene and N-(1,1-dimethylethyl)-2-propenamide (9CI) (CA INDEX NAME)

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CRN 2039-82-9
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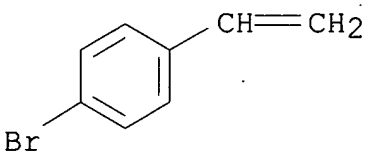

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CRN 1075-49-6
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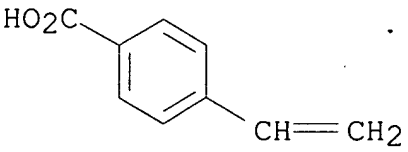

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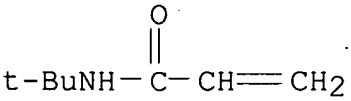

IC ICM G03F007-00
ICS G03F007-033; G03F007-32
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 46
ST **lithog printing plate** surfactant copolymer
IT Surfactants
(anionic; developer for **lithog. printing plate**)
IT **Lithographic** plates
(method making **lithog. printing plates**)
IT 146115-88-0P **188601-29-8P 604813-16-3P 604813-18-5P 604813-19-6P 604813-23-2P**
604813-38-9P 604813-40-3P 604813-41-4P 604813-42-5P
604813-43-6P 604813-44-7P 604813-45-8P 604813-46-9P
604813-47-0P 604813-48-1P 604813-50-5P 604813-52-7P
604813-54-9P 604813-55-0P 604813-56-1P 604813-57-2P
604813-59-4P 604813-60-7P 604813-61-8P 604813-62-9P
604813-64-1P 604813-65-2P 604813-66-3P 604813-67-4P
722484-52-8P 722494-08-8P 722494-09-9P
(copolymer; light-sensitive layer of **lithog. printing plate** precursors)
IT 2386-53-0, Sodium dodecylsulfonate 25638-17-9 27936-45-4
28519-02-0 51506-28-6 74523-85-6 89788-04-5
(developer for **lithog. printing plate**)

L39 ANSWER 2 OF 18 HCA COPYRIGHT 2006 ACS on STN
141:131306 **Infrared-sensitive lithographic printing plate.** Kawauchi, Ikuo; Nakamura, Ippei (Fuji Photo Film Co., Ltd., Japan). U.S. Pat. Appl. Publ. US 2004137365 A1 20040715, 25 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-743412 20031223. PRIORITY: JP 2002-382230 20021227.

Chk
D. P.

AB There is provided an **IR-sensitive lithog. printing plate** capable of direct plate-making based on digital data from a computer or the like, and excellent in development latitude and scratch resistance, which is an **IR-sensitive lithog. printing plate** comprising a support and a **heat-sensitive** layer, the **heat-sensitive** layer comprising (A) a copolymer having a specific monomer unit having a carboxyl group, (B) an alkali-sol. high mol. wt. compd. having a sulfonamide group, and (C) a light-heat conversion material.
IT **188601-29-8 604813-16-3 604813-18-5**

604813-19-6 604813-23-2
(IR-sensitive lithog. printing plate contg.)

RN 188601-29-8 HCA
CN Benzoic acid, 4-ethenyl-, polymer with ethenylmethylbenzene (9CI) (CA INDEX NAME)

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CRN 25013-15-4
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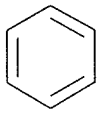
CCI IDS



D1—Me

D1—CH═CH2

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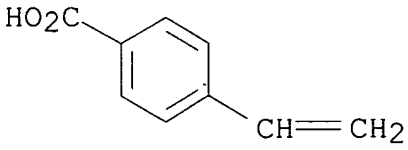

RN 604813-16-3 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 4-ethenyl-1,1'-biphenyl (9CI) (CA INDEX NAME)

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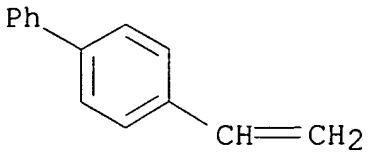

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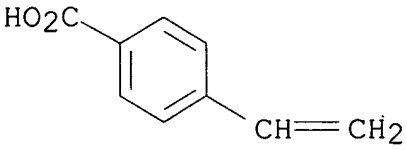
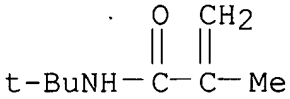


RN 604813-18-5 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethylethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

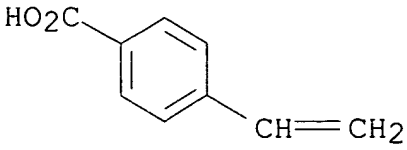
CM 1

CRN 6554-73-0
CMF C8 H15 N O



CM 2

CRN 1075-49-6
CMF C9 H8 O2

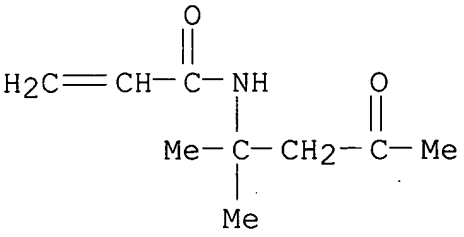


RN 604813-19-6 HCA

CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethyl-3-oxobutyl)-2-propenamide (9CI) (CA INDEX NAME)

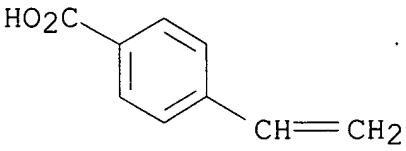
CM 1

CRN 2873-97-4
CMF C9 H15 N O2



CM 2

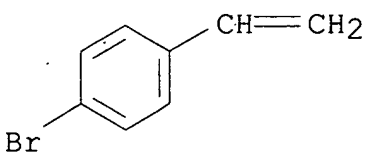
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-23-2 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 1-bromo-4-ethenylbenzene and N-(1,1-dimethylethyl)-2-propenamide (9CI) (CA INDEX NAME)

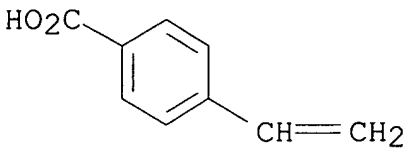
CM 1

CRN 2039-82-9
CMF C8 H7 Br



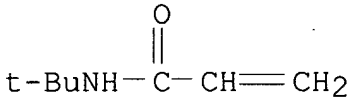
CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

CRN 107-58-4
CMF C7 H13 N O



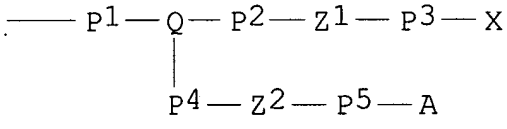
IC ICM G03F007-039
INCL 430270100; 430286100; 430302000; 101453000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **IR sensitive lithog printing plate**
IT Dyes
(**IR**-absorbing; **IR-sensitive lithog. printing plate** contg.)
IT **Lithographic** plates
(**IR-sensitive lithog. printing plate**)
IT Phenolic resins, uses
(novolak; **IR-sensitive lithog. printing plate** contg.)
IT **Printing plates**
(photosensitive; **IR-sensitive lithog. printing plate**)
IT 146115-88-0 **188601-29-8 604813-16-3 604813-18-5 604813-19-6 604813-23-2**
604813-38-9 604813-40-3 604813-41-4 604813-42-5 604813-43-6
604813-44-7 604813-45-8 604813-46-9 604813-47-0 604813-48-1
604813-50-5 604813-52-7 604813-54-9 604813-55-0 604813-56-1
604813-57-2 604813-59-4 604813-60-7 604813-61-8 604813-62-9
604813-64-1 604813-65-2 604813-66-3 604813-67-4 722484-52-8

722494-08-8 722494-09-9
(**IR-sensitive lithog. printing plate** contg.)

IT 141634-00-6, Acrylonitrile-N-(4-Aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer
(**IR-sensitive lithog. printing plate** contg.)

L39 ANSWER 3 OF 18 HCA COPYRIGHT 2006 ACS on STN
140:311988 Polymerizable composition for planographic **printing plate**. Kunita, Kazuto; Fujimaki, Kazuhiro (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1403710 A1 20040331, 95 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-21661 20030926. PRIORITY: JP 2002-281557 20020926.

GI



I

AB Disclosed is a photo- or thermo-polymerizable compn. including an alkali-sol. polymerizable polymer that contains a structure on a side chain represented by the following general formula I (X = polymerizable group; A = alkali-sol. group; Q = hydrocarbon linking group, heteroring; Z1, Z2 = single bond, hydrocarbon linking group; P1-P5 = single bond, H, N, O, S, carbonyl). The present invention provides photo- or thermo-polymerizable compns. in which a curing reaction occurs and proceeds with high sensitivity and an obtained cured film is excellent in hardness and storage stability. The invention also provides photo- or thermo-polymerizable compns. as a recording layer of a planog. **printing plate** precursor that can be recorded with high sensitivity by using IR laser exposure, and is excellent in press life and storage stability.

IT **676448-71-8**
(polymerizable compn. for planog. **printing plate**)

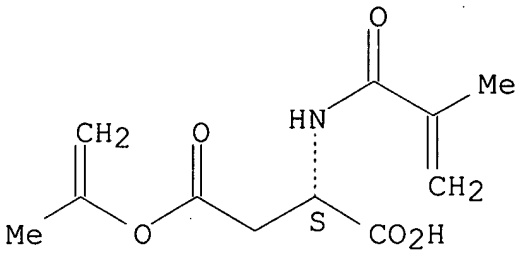
RN 676448-71-8 HCA

CN L-Aspartic acid, N-(2-methyl-1-oxo-2-propenyl)-, 4-(1-methylethenyl) ester, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

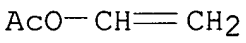
CRN 676448-70-7
CMF C11 H15 N O5

Absolute stereochemistry.



CM 2

CRN 108-05-4
CMF C4 H6 O2

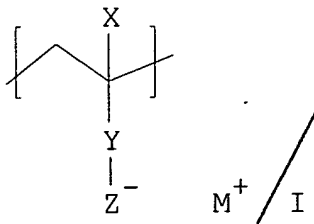


IC ICM G03F007-038
ICS G03F007-033; B41C001-10; B41M005-40
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST planog **printing plate** polymerizable compn
IT **Printing plates**
(planog.; polymerizable compn. for planog. **printing plate**)
IT 676448-52-5P 676448-54-7P 676448-61-6P 676448-65-0P
(polymerizable compn. for planog. **printing plate**)
IT 4986-89-4 29570-58-9 40220-08-4 293329-25-6 305369-31-7
500769-71-1 676448-56-9 676448-58-1 676448-60-5 676448-63-8
676448-67-2 676448-69-4 **676448-71-8** 676448-73-0
676448-74-1 676448-76-3 676448-78-5 676448-80-9 676448-82-1
676448-84-3 676448-85-4 676448-87-6 676448-89-8
(polymerizable compn. for planog. **printing plate**)
IT 50512-48-6P 53193-87-6P 676448-50-3P 676448-83-2P
(prepn. of polymerizable polymer for planog. **printing plate**)

IT 65-49-6, 4-Aminosalicylic acid 89-57-6, 5-Aminosalicylic acid 106-91-2, Glycidyl methacrylate 920-46-7, Methacrylic acid chloride 6674-22-2, 1,8-Diazabicyclo[5,4,0]-7-undecene 20769-85-1 213453-08-8
(prepn. of polymerizable polymer for planog. **printing plate**)

L39 ANSWER 4 OF 18 HCA COPYRIGHT 2006 ACS on STN
140:294803 Polymerizable composition for planographic **printing plate** precursor. Shimada, Kazuto; Goto, Takahiro (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1400851 A2 20040324, 117 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-19700 20030910. PRIORITY: JP 2002-265466 20020911; JP 2002-265467 20020911; JP 2002-283912 20020927.

GI



AB The present invention provides a neg. type planog. **printing plate** precursor comprising polymerizable compn. that includes a compd. having polymerizable unsatd. group, and a macromol. compd. having at a side chain a structure represented by the general formula I (Z- = COCOO-, COO-, SO3-, SO2-N--R, R = monovalent org. group; M+ = onium cation; X = H, OH, urethane, urea, halogen, amino, amide, sulfonyl, sulfonate, monovalent org. group; Y = divalent org. connecting group; n = 0 or 1). The present invention provides a neg. type planog. **printing plate** precursor responsive to an IR laser, the precursor being superior in recording sensitivity and printing durability.

IT **675140-80-4P**
(polymerizable compn. for planog. **printing plate** precursor)

RN 675140-80-4 HCA

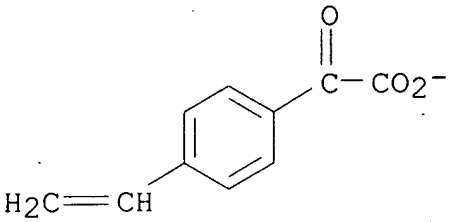
CN Sulfonium, bis(4-chlorophenyl)(4-methylphenyl)-, salt with 4-ethenyl-α-oxobenzeneacetic acid (1:1), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 676596-24-0
CMF C19 H15 Cl2 S . C10 H7 O3

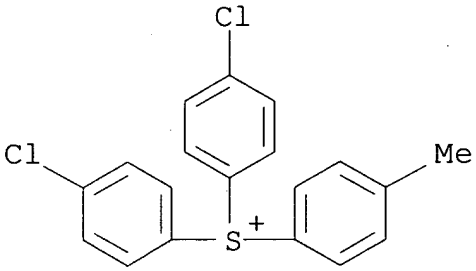
CM 2

CRN 675140-79-1
CMF C10 H7 O3



CM 3

CRN 667888-57-5
CMF C19 H15 Cl2 S



IC ICM G03F007-029
ICS B41M005-40; B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST planog **printing plate** neg precursor polymerizable compn IR
IT **Printing plates**
(planog.; polymerizable compn. for planog. **printing plate** precursor)
IT 675140-73-5P 675140-75-7P 675140-77-9P **675140-80-4P** 675140-86-0P 675140-88-2P
(polymerizable compn. for planog. **printing plate** precursor)

IT 67653-78-5P, Dipentaerythritol hexaacrylate, homopolymer
675140-89-3P 675140-90-6P
(polymerizable compn. for planog. **printing** **plate** precursor)
IT 183745-11-1 675140-91-7 675140-93-9 675140-95-1 675140-97-3
(polymerizable compn. for planog. **printing** **plate** precursor)
IT 675140-78-0P 675140-81-5P 675140-83-7P
(prepn. of macromol. compd. for planog. **printing** **plate** precursor)

L39 ANSWER 5 OF 18 HCA COPYRIGHT 2006 ACS on STN
139:277482 Acrylic and cresol novolak resin comprising infrared-photosensitive composition with improved latitude and press life. Serikawa, Takeshi; Kawauchi, Ikuo; Tsuchiya, Mitsumasa; Nakamura, Ippei (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1347014 A2 20030924, 35 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-6180 20030319. PRIORITY: JP 2002-77817 20020320; JP 2002-81044 20020322.

2 Layers ?

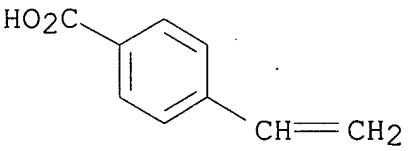
AB An **IR-sensitive** photosensitive compn. comprising: (A) a resin; (B) a novolak resin; and (C) a light-to-heat converting substance, wherein the resin (A) has, as copolymer components, at least: (1) a (meth)acrylic acid or a monomer represented by formula (I) as defined herein; and (2) at least one compd. selected from the group consisting of a (meth)acrylic ester, a (meth)acrylamide deriv., and a styrene deriv.

IT **28854-57-1**, Methyl methacrylate-4-vinylbenzoic acid copolymer **188601-29-8 604813-16-3**, 4-Phenylstyrene-4-vinylbenzoic acid copolymer **604813-17-4**, 4-Chloro-α-methylstyrene-4-vinylbenzoic acid copolymer **604813-18-5 604813-19-6 604813-20-9**, N,N-Dimethylmethacrylamide-4-vinylbenzoic acid copolymer **604813-21-0**, N-Phenylmethacrylamide-4-vinylbenzoic acid copolymer **604813-22-1**, N-[3-(Dimethylamino)propyl]acrylamide-4-vinylbenzoic acid copolymer **604813-23-2**, 4-Bromostyrene-N-tert-butylacrylamide-4-vinylbenzoic acid copolymer **604813-68-5**, 2-Fluorostyrene-N-tert-butylacrylamide-4-vinylbenzoic acid copolymer **604813-69-6**, 2-Fluorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-70-9**, 3-Chlorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-71-0**, 4-Chlorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-72-1**, 4-Fluorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer
(acrylic and cresol novolak resin comprising IR-photosensitive

compn. with improved latitude and press life)
RN 28854-57-1 HCA
CN Benzoic acid, 4-ethenyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

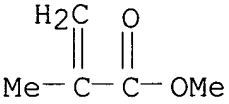
CM 1

CRN 1075-49-6
CMF C9 H8 O2



CM 2

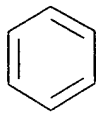
CRN 80-62-6
CMF C5 H8 O2



RN 188601-29-8 HCA
CN Benzoic acid, 4-ethenyl-, polymer with ethenylmethylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 25013-15-4
CMF C9 H10
CCI IDS

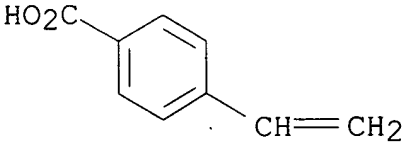


D1—Me

D1—CH═CH$_2$

CM 2

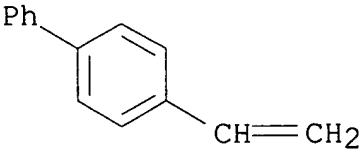
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-16-3 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 4-ethenyl-1,1'-biphenyl (9CI) (CA INDEX NAME)

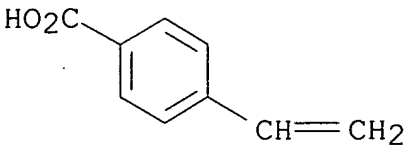
CM 1

CRN 2350-89-2
CMF C14 H12



CM 2

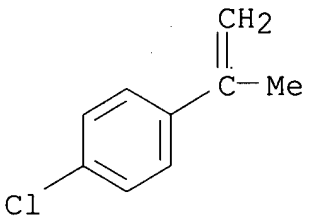
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-17-4 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 1-chloro-4-(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

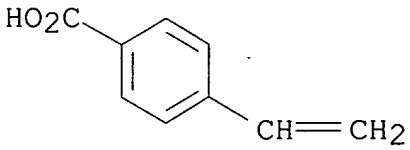
CM 1

CRN 1712-70-5
CMF C9 H9 Cl



CM 2

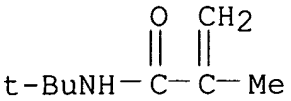
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-18-5 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethylethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

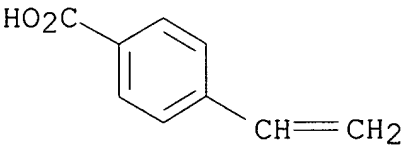
CM 1

CRN 6554-73-0
CMF C8 H15 N O



CM 2

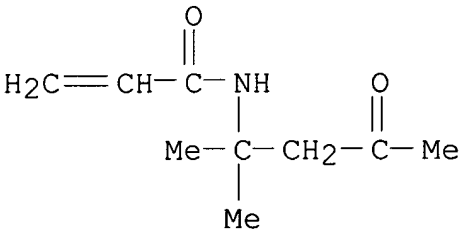
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-19-6 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethyl-3-oxobutyl)-2-propenamide (9CI) (CA INDEX NAME)

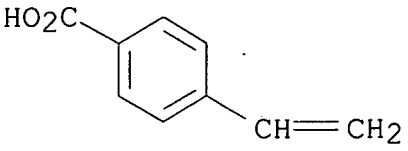
CM 1

CRN 2873-97-4
CMF C9 H15 N O2



CM 2

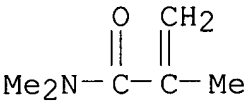
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-20-9 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N,N,2-trimethyl-2-propenamide (9CI) (CA INDEX NAME)

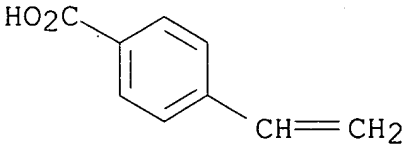
CM 1

CRN 6976-91-6
CMF C6 H11 N O



CM 2

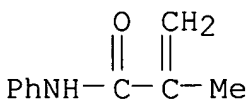
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-21-0 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 2-methyl-N-phenyl-2-propenamide (9CI) (CA INDEX NAME)

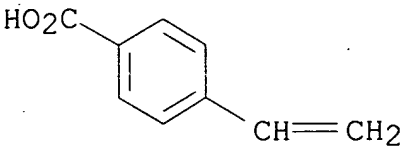
CM 1

CRN 1611-83-2
CMF C10 H11 N O



CM 2

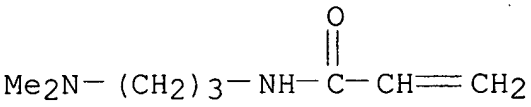
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-22-1 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-[3-(dimethylamino)propyl]-2-propenamide (9CI) (CA INDEX NAME)

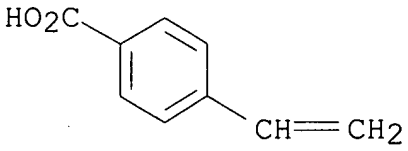
CM 1

CRN 3845-76-9
CMF C8 H16 N2 O



CM 2

CRN 1075-49-6
CMF C9 H8 O2

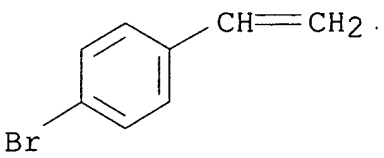


RN 604813-23-2 HCA
CN Benzoic acid, 4-ethenyl-, polymer with 1-bromo-4-ethenylbenzene and N-(1,1-dimethylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

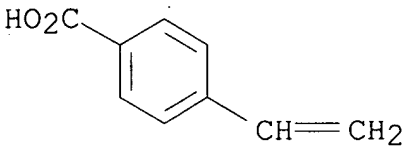
CRN 2039-82-9

CMF C8 H7 Br



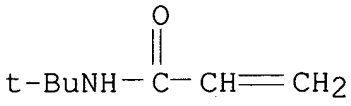
CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

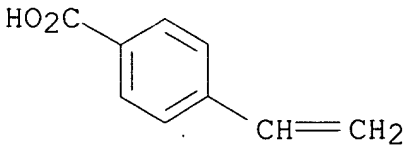
CRN 107-58-4
CMF C7 H13 N O



RN 604813-68-5 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(1,1-dimethylethyl)-2-propenamide and 1-ethenyl-2-fluorobenzene (9CI) (CA INDEX NAME)

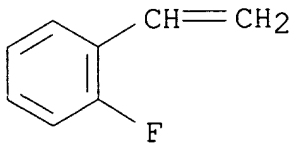
CM 1

CRN 1075-49-6
CMF C9 H8 O2



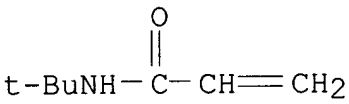
CM 2

CRN 394-46-7
CMF C8 H7 F



CM 3

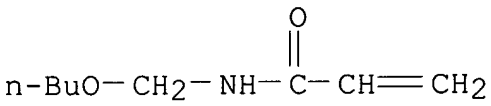
CRN 107-58-4
CMF C7 H13 N O



RN 604813-69-6 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(butoxymethyl)-2-propenamide and 1-ethenyl-2-fluorobenzene (9CI) (CA INDEX NAME)

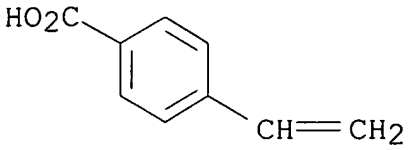
CM 1

CRN 1852-16-0
CMF C8 H15 N O2



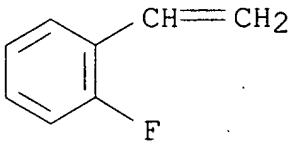
CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

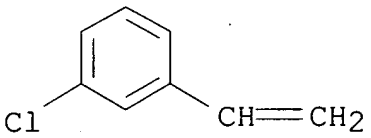
CRN 394-46-7
CMF C8 H7 F



RN 604813-70-9 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(butoxymethyl)-2-propenamide and 1-chloro-3-ethenylbenzene (9CI) (CA INDEX NAME)

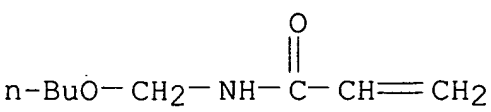
CM 1

CRN 2039-85-2
CMF C8 H7 Cl



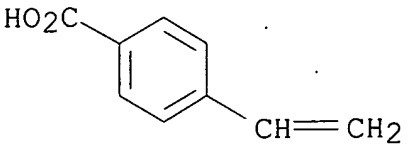
CM 2

CRN 1852-16-0
CMF C8 H15 N O2



CM 3

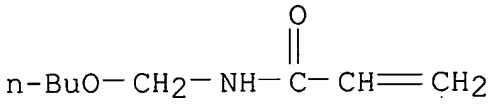
CRN 1075-49-6
CMF C9 H8 O2



RN 604813-71-0 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(butoxymethyl)-2-propenamide and 1-chloro-4-ethenylbenzene (9CI) (CA INDEX NAME)

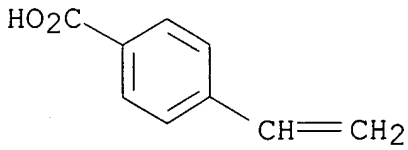
CM 1

CRN 1852-16-0
CMF C8 H15 N O2



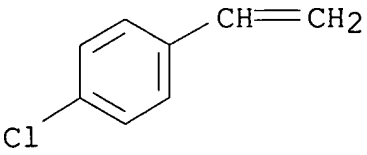
CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

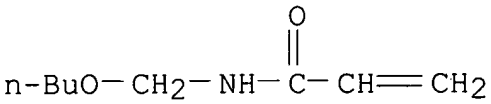
CRN 1073-67-2
CMF C8 H7 Cl



RN 604813-72-1 HCA
CN Benzoic acid, 4-ethenyl-, polymer with N-(butoxymethyl)-2-propenamide and 1-ethenyl-4-fluorobenzene (9CI) (CA INDEX NAME)

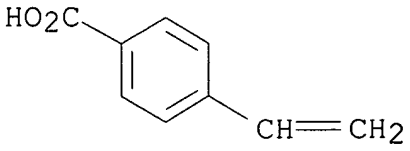
CM 1

CRN 1852-16-0
CMF C8 H15 N O2



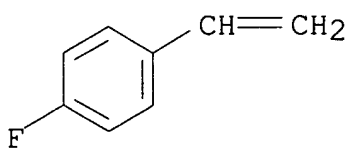
CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

CRN 405-99-2
CMF C8 H7 F



IC ICM C08L061-06

ICS C08L033-00; B41M005-36; G03F007-038
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
ST novolak acrylic resin IR photosensitive compn **lithog** plate precursor
IT **Lithographic** plates
(pos., precursors; acrylic and cresol novolak resin comprising IR-photosensitive compn. with improved latitude and press life)
IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers 9016-83-5, Cresol-formaldehyde copolymer **28854-57-1**, Methyl methacrylate-4-vinylbenzoic acid copolymer 146115-88-0 **188601-29-8 604813-16-3**, 4-Phenylstyrene-4-vinylbenzoic acid copolymer **604813-17-4**, 4-Chloro-α-methylstyrene-4-vinylbenzoic acid copolymer **604813-18-5 604813-19-6 604813-20-9**, N,N-Dimethylmethacrylamide-4-vinylbenzoic acid copolymer **604813-21-0**, N-Phenylmethacrylamide-4-vinylbenzoic acid copolymer **604813-22-1**, N-[3-(Dimethylamino)propyl]acrylamide-4-vinylbenzoic acid copolymer **604813-23-2**, 4-Bromostyrene-N-tert-butylacrylamide-4-vinylbenzoic acid copolymer 604813-24-3, 4-Carboxymethoxystyrene-methylstyrene copolymer 604813-25-4, 4-Carboxymethoxystyrene-4-phenylstyrene copolymer 604813-26-5, 4-Carboxymethoxystyrene-N-tert-butylacrylamide copolymer 604813-27-6, 4-Carboxymethoxystyrene-N-tert-butylmethacrylamide copolymer 604813-28-7, 4-Carboxymethoxystyrene-N-[3(dimethylamino)propylacrylamide copolymer 604813-29-8, 4-Carboxymethoxystyrene-methylstyrene-N-tert-butylacrylamide copolymer 604813-30-1, 4-Carboxymethoxystyrene-chloromethylstyrene-N-tert-butylmethacrylamide copolymer 604813-31-2, 4-Carboxymethoxystyrene-4-chloro-α-methylstyrene-N,N-dimethylacrylamide copolymer 604813-32-3, 4-Carboxymethoxystyrene-4-chloro-α-methylstyrene-N-[3-(dimethylamino)propyl]acrylamide copolymer 604813-33-4, 4-Carboxymethoxystyrene-4-chloro-α-methylstyrene-methyl acrylate-N-[3-(dimethylamino)propyl]acrylamide copolymer 604813-34-5, 4-Carboxymethoxystyrene-4-chloro-α-methylstyrene-methyl methacrylate-N,N-dimethylacrylamide copolymer 604813-35-6, 4-Carboxymethoxystyrene-chloromethylstyrene-ethyl methacrylate-N,N-dimethylacrylamide copolymer 604813-36-7, 4-Carboxymethoxystyrene-methyl methacrylate copolymer 604813-38-9 604813-40-3 604813-41-4 604813-42-5 604813-43-6 604813-44-7 604813-45-8 604813-46-9 604813-47-0 604813-48-1 604813-49-2 604813-50-5 604813-52-7 604813-54-9 604813-55-0 604813-56-1 604813-57-2 604813-58-3 604813-59-4 604813-60-7 604813-61-8 604813-62-9 604813-63-0 604813-64-1 604813-65-2 604813-66-3 604813-67-4 **604813-68-5**, 2-Fluorostyrene-N-tert-butylacrylamide-4-vinylbenzoic acid copolymer **604813-69-6**, 2-Fluorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-70-9**, 3-Chlorostyrene-N-

(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-71-0**, 4-Chlorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer **604813-72-1**, 4-Fluorostyrene-N-(butoxymethyl)acrylamide-4-vinylbenzoic acid copolymer
(acrylic and cresol novolak resin comprising IR-photosensitive compn. with improved latitude and press life)

L39 ANSWER 6 OF 18 HCA COPYRIGHT 2006 ACS on STN
137:255194 Design and syntheses of mass persistent photoresists. Pinnow, Matthew J.; Noyes, Ben F., III; Tran, Hoang V.; Tattersall, Peter I.; Cho, Sungseo; Klopp, John M.; Bensel, Nicolas; Frechet, Jean M. J.; Sanders, Daniel P.; Grubbs, Robert H.; Willson, C. Grant (Department of Chemistry, University of Texas at Austin, Austin, TX, 78712, USA). PMSE Preprints, 87, 403-404 (English) **2002**. CODEN: PPMRA9. ISSN: 1550-6703. Publisher: American Chemical Society.

AB The authors describe their study to design a "mass persistent" resist that undergoes an acid catalyzed polarity switch without the intentional release of volatiles. The authors used the following process: design soly. switching group, synthesize model compds., test model compds. for functionality, synthesize "mass persistent" polymer and then do **lithog**. evaluation. This paper presents the authors progress in developing the "mass persistent" resist.

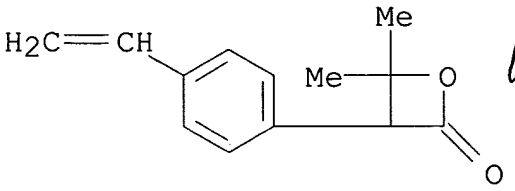
IT **460998-99-6P**
(**lithog**. evaluation of copolymers of hexafluoroacetonestyrene and β-lactone styrene for photoresists which undergo acid catalyzed polarity switch without release of volatiles)

RN 460998-99-6 HCA

CN Benzeneacetic acid, 4-ethenyl-, polymer with 3-(4-ethenylphenyl)-4,4-dimethyl-2-oxetanone (9CI) (CA INDEX NAME)

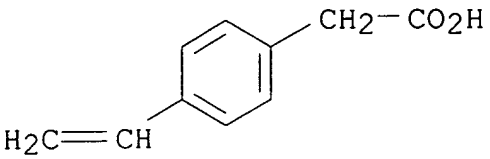
CM 1

CRN 460998-96-3
CMF C13 H14 O2



CM 2

CRN 46122-65-0
CMF C10 H10 O2



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST design synthesis mass persistent **lithog** photoresist; lactone polymer mass persistent **lithog** photoresist
IT Fluoropolymers, preparation
(**lithog**. evaluation of copolymers of hexafluoroacetonestyrene and β-lactone styrene for photoresists which undergo acid catalyzed polarity switch without release of volatiles)
IT Polyalkenamers
(neg. results; **lithog**. evaluation of copolymers of hexafluoroacetonestyrene and β-lactone styrene for photoresists which undergo acid catalyzed polarity switch without release of volatiles)
IT 460998-97-4P **460998-99-6P** 460999-01-3P
(**lithog**. evaluation of copolymers of hexafluoroacetonestyrene and β-lactone styrene for photoresists which undergo acid catalyzed polarity switch without release of volatiles)
IT 460998-86-1
(neg. results; **lithog**. evaluation of lactone polymer in relation to design of photoresists which undergo acid catalyzed polarity switch without release of volatiles)

L39 ANSWER 7 OF 18 HCA COPYRIGHT 2006 ACS on STN
136:46763 Manufacturing composite parts containing insulators and photosensitive compositions for multilayer circuit boards and electronic packages. Hotta, Yasuyuki; Hiraoka, Toshiro; Asakawa, Koji; Matake, Shigeru (Toshiba Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001345537 A2 **20011214**, 26 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 2001-96683 20010329. PRIORITY: JP 2000-159163 20000331.
AB The process includes: (1) forming photosensitive compn. layers on insulators, (2) exposing the layers to light of ≥280-nm wave-length to form ion-exchanging radicals for patterning, and (3) bonding the radicals with metal ions or metals to form elec.

conductive parts. Insulators are not deteriorated by the exposure process, and abnormal pptn. of metals is absent, allowing easy formation of elec. conductive parts with precision patterns.

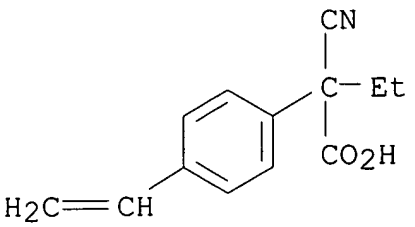
IT **158259-53-1**
(manufg. composite parts contg. insulators and photosensitive compns. for multilayer circuit boards and electronic packages)

RN 158259-53-1 HCA

CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158259-52-0
CMF C13 H13 N O2



IC ICM H05K003-10
ICS C23C018-18; G03F007-004; G03F007-38; H05K001-18; H05K003-18; H05K003-46

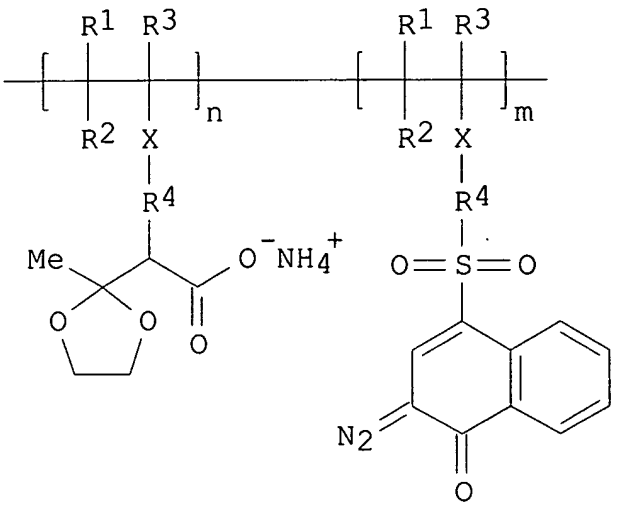
CC 76-3 (Electric Phenomena)

IT Electric insulators
Electronic packages
Photolithography
Printed circuit boards
(manufg. composite parts contg. insulators and photosensitive compns. for multilayer circuit boards and electronic packages)

IT 13676-54-5, Bis(4-maleimidophenylmethane) **158259-53-1**
380427-67-8 380428-37-5
(manufg. composite parts contg. insulators and photosensitive compns. for multilayer circuit boards and electronic packages)

L39 ANSWER 8 OF 18 HCA COPYRIGHT 2006 ACS on STN
132:144411 Water soluble positive-working photoresist composition. Mcculloch, Iain; East, Anthony J.; Kang, Ming; Keosian, Richard; Yoon, Hyun-nam (Clariant International Ltd., Switz.). PCT Int. Appl. WO 2000005282 A1 **20000203**, 16 pp. DESIGNATED STATES: W: CN, JP, KR, SG; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-EP4636 19990703. PRIORITY: US 1998-121285 19980723.

GI



I

AB Water sol. pos. working photoresist for i-line **lithog.** comprises a polymer I (R1-R4 = H, C1-5 alkyl or alkoxy; X = CO, OCO, CONH, O C1-5 alkyl) with a backbone coupled by linkage groups to two pendant groups. The first pendant group is a β-keto carboxylate moiety designed to undergo a thermal elimination polarity switch to a water-insol. ketone. A second linkage group couples a diazonaphthoquinone (DNQ) moiety via a 4-sulfonate group, to the backbone. This DNQ moiety undergoes a common photochem. rearrangement to a water-sol. indene carboxylic acid. The photoresist film is deposited on a substrate and transformed to a water insol. state by heating. This causes the β-keto carboxylate salt to undergo both Hofmann degrdn. and decarboxylation, liberating ammonia and CO2 and yielding an aliph. ketone. During the exposure fabrication step, the now water insol. photoresist undergoes a common photochem. rearrangement reaction at the DNQ site, which yields an indene carboxylic acid. The polymer product, in the exposed regions, which contains the highly polar carboxylic acid group, is now sol. in aq. base developer. As the starting polymer undergoes two soly. switches, from water sol. to insol. (after heating) and back to sol. (after irradn.), the photoresist will create a pos. image when developed from an aq. base.

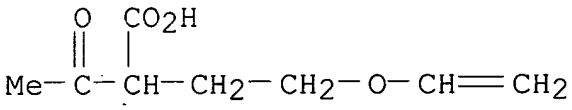
IT **256490-88-7P**
(water sol. pos. working photoresist for i-line **lithog.** consisting of polymer with β-keto carboxylate pendant group and diazonaphthoquinone pendant group)

RN 256490-88-7 HCA

CN Butanoic acid, 2-[2-(ethenyloxy)ethyl]-3-oxo-, polymer with 2-[[(3-diazo-3,4-dihydro-4-oxo-1-naphthalenyl)sulfonyl]oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

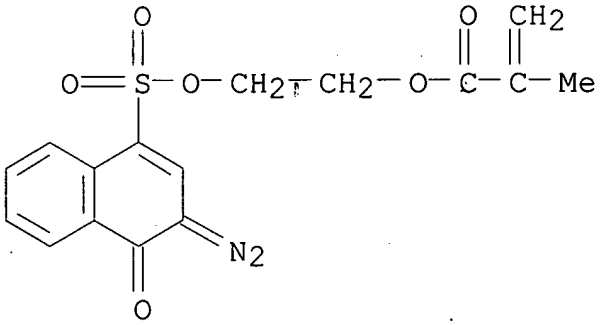
CM 1

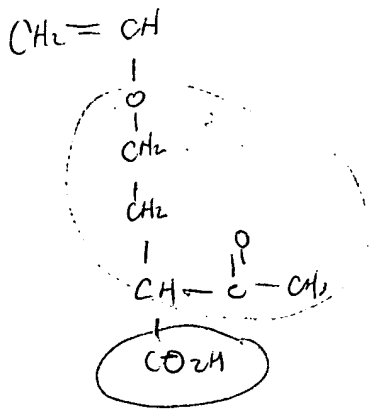
CRN 256490-87-6
CMF C8 H12 O4



CM 2

CRN 167408-33-5
CMF C16 H14 N2 O6 S





IC ICM C08F246-00
ICS C08F008-48; G03F007-023

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST water soluble pos working **lithog** polymer photoresist

IT Elimination reaction
(thermal; water sol. pos. working polymer photoresist for i-line **lithog**. with β-keto carboxylate pendant group undergoing thermal elimination polarity switch to water-insol. ketone during film prepn. process)

IT Positive photoresists
(water sol. pos. working photoresist for i-line **lithog**. consisting of polymer with β-keto carboxylate pendant group and diazonaphthoquinone pendant group)

IT **256490-88-7P**
(water sol. pos. working photoresist for i-line **lithog**.

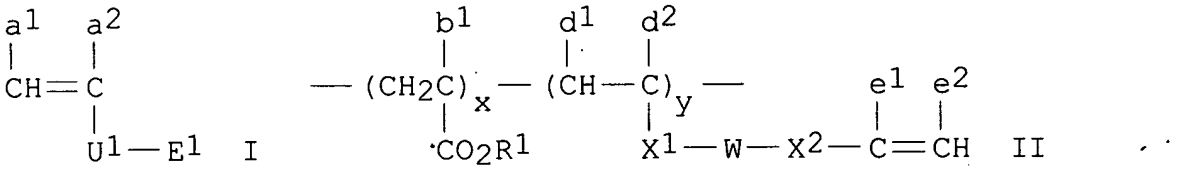
consisting of polymer with β-keto carboxylate pendant group and diazonaphthoquinone pendant group)

IT 124-38-9, Carbon dioxide, processes 7664-41-7, Ammonia, processes (water sol. pos. working polymer photoresist for i-line **lithog.** with β-keto carboxylate pendant group undergoing thermal elimination polarity switch to water-insol. ketone during film prepn. process)

L39 ANSWER 9 OF 18 HCA COPYRIGHT 2006 ACS on STN

130:202940 Oil-based ink for making **lithographic printing plate** according to ink-jet printing process. Kato, Eiichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11043638 A2 **19990216** Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-147732 19980528. PRIORITY: JP 1997-154509 19970528.

GI



AB The oil-based ink consists of resin particles dispersed in a non-aq. carrier having elec. resistance ≥109 Ωcm and ≤3.5 dielec. const., wherein the resin particles are prepd. by polymn. of a monofunctionalized monomer(A) which becomes non-sol. in a mixed-non-aq. solvent after polymn., a monomer I (a1-2 = H, halo, cyano, alkyl,etc.; U1 = -COO-, -CONH-, etc.; E1 = C≥8 aliph.) which copolymerizes with the monomer(A), and copolymer II (b1 = H, C1-4 alkyl; R1 = C10-32 alkyl, alkenyl; d1-2 and e1-2 = H, halo, cyano, alkyl, etc.; X1-2 = -COO-, -CONH-, etc.; x/y = 90/10-99/1) which is sol. in the mixed non-aq. solvent. The ink shows excellent characteristics in the redispersion, the shelf-life, and the printing durability.

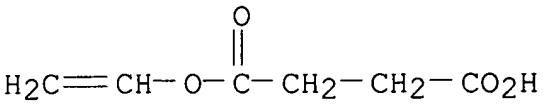
IT **220733-92-6P**, Dodecyl methacrylate-octadecyl methacrylate-glycidyl methacrylate copolymer vinylsuccinate ester (dispersion stabilizing resin for prepn. of oil-based ink for making **lithog. printing plate** according to ink-jet printing process)

RN 220733-92-6 HCA

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with octadecyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate, ethenyl butanedioate (9CI) (CA INDEX NAME)

CM 1

CRN 44912-22-3
CMF C6 H8 O4

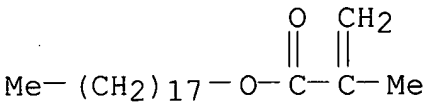


CM 2

CRN 120066-95-7
CMF (C22 H42 O2 . C16 H30 O2 . C7 H10 O3)x
CCI PMS

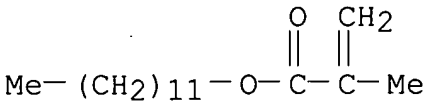
CM 3

CRN 32360-05-7
CMF C22 H42 O2



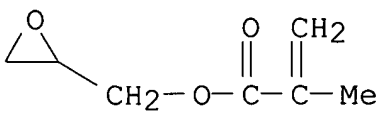
CM 4

CRN 142-90-5
CMF C16 H30 O2



CM 5

CRN 106-91-2
CMF C7 H10 O3



IC ICM C09D011-00
ICS B41C001-10; B41M001-06; B41M005-00; B41N001-14
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38, 42
ST Oil based ink **lithog printing plate**; resin particle polymn ink jet printing
IT Polymers, preparation
(graft; oil-based ink for making **lithog. printing plate** according to ink-jet printing process)
IT Inks
(jet-printing; oil-based ink for making **lithog. printing plate** according to ink-jet printing process)
IT Ink-jet printing
Lithographic plates
(oil-based ink for making **lithog. printing plate** according to ink-jet printing process)
IT 220728-45-0P, 11-Methacrylamide undecanoic acid-tridecyl methacrylate copolymer ester with vinyl alcohol 220728-51-8P 220733-91-5P, 2-Hydroxyethyl methacrylate-octadecyl methacrylate copolymer allylglutaric acid ester **220733-92-6P**, Dodecyl methacrylate-octadecyl methacrylate-glycidyl methacrylate copolymer vinylsuccinate ester
(dispersion stabilizing resin for prepn. of oil-based ink for making **lithog. printing plate** according to ink-jet printing process)
IT 29406-88-0P, Octadecyl vinyl ether-vinyl acetate copolymer 39049-73-5P, Ethyl acrylate-methyl methacrylate-octadecyl acrylate copolymer 55778-35-3P, Octadecyl methacrylate-vinyl acetate copolymer 113989-22-3P 178630-10-9P, Vinyl acetate-vinyl oleate copolymer 212839-66-2P, Methyl methacrylate-methyl acrylate-octadecyl α-chloroacrylate copolymer 212839-68-4P, Methyl methacrylate-methyl acrylate-tetradecyl α-cyanoacrylate copolymer 212839-71-9P, Ethyl methacrylate-methyl acrylate-dodecyl acrylate-mono(hexyl)mono(methacryloyloxyethyl) butenedioate copolymer 212839-73-1P, Vinyl acetate-styrene-vinyl propionate-butoxycarbonyldecyl methacrylate copolymer 212839-74-2P, Methyl methacrylate-acrylic acid-methyl acrylate-docosanyl acrylate copolymer 216878-38-5P, Hexyloxycarbonylethylcarbonyloxyethyl methacrylate-vinyl acetate copolymer 216878-50-1P 220728-60-9P 220728-65-4P 220728-67-6P 220728-70-1P 220728-72-3P 220728-75-6P 220728-78-9P, Methyl methacrylate-2-cyanoethyl methacrylate-methyl acrylate-mono(nonyl) mono(α-chloroacryloyloxyethyl) glutarate copolymer

(resin particles for oil-based ink for making **lithog.** **printing plate** according to ink-jet printing process)

L39 ANSWER 10 OF 18 HCA COPYRIGHT 2006 ACS on STN
130:73904 Photosensitive composition, image-forming material, and image formation. Hirai, Katsura; Nagashima, Toshiharu; Miura, Akio; Ohnishi, Akira (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 10319590 A2 **19981204** Heisei, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-128574 19970519.

AB The title compn. contains a compd. R1CR2R3CO2H (R1-3 = substituents ≥1 of which is an arom. ring group which may be substituted, vinyl, amino or OH) and an IR absorbent. An image-forming material possessing a photosensitive layer contg. the compn. on a support and an imaging method by IR irradiating IR the material followed by development are also claimed. The compn. shows high sensitivity toward IR rays and developability and is useful for neg.-working presensitized **lithog.** plates.

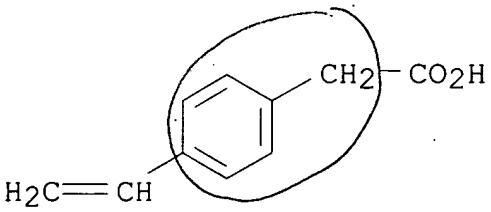
IT **218140-65-9**, N-(4-Hydroxyphenyl)methacrylamide-methyl methacrylate-(p-vinylphenyl)acetic acid copolymer
(photosensitive compn. contg. carboxylic acid compd. and IR absorbent)

RN 218140-65-9 HCA

CN Benzeneacetic acid, 4-ethenyl-, polymer with N-(4-hydroxyphenyl)-2-methyl-2-propenamide and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

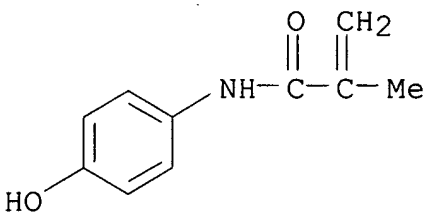
CM 1

CRN 46122-65-0
CMF C10 H10 O2



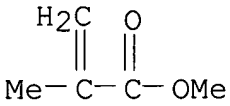
CM 2

CRN 19243-95-9
CMF C10 H11 N O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-038
ICS G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photosensitive compn carboxylic acid compd; IR absorbent presensitized **lithog** plate
IT **Lithographic** plates
(presensitized; photosensitive compn. contg. carboxylic acid compd. and IR absorbent)
IT 60-18-4, L-Tyrosine, uses 86-87-3, 1-Naphthaleneacetic acid 90-64-2, α-Hydroxyphenylacetic acid 117-34-0, Diphenylacetic acid 492-37-5, Hydratropic acid 552-63-6, Tropic acid 2835-06-5, α-Aminophenylacetic acid 218140-63-7 **218140-65-9**, N-(4-Hydroxyphenyl)methacrylamide-methyl methacrylate-(p-vinylphenyl)acetic acid copolymer 218140-67-1 218140-69-3 218151-82-7
(photosensitive compn. contg. carboxylic acid compd. and IR absorbent)

L39 ANSWER 11 OF 18 HCA COPYRIGHT 2006 ACS on STN
127:339149 Photogenerated Base in Resist and Imaging Materials: Design of Functional Polymers Susceptible To Base Catalyzed Decarboxylation. Frechet, Jean M. J.; Leung, Man-Kit; Urankar, Edward J.; Willson, C. Grant; Cameron, James F.; MacDonald, Scott A.; Niesert, Claus P. (Department of Chemistry, University of California, Berkeley, CA, 94720-1460, USA). Chemistry of Materials, 9(12), 2887-2893 (English) **1997**. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

AB A chem. amplified resist material consisting of poly[2-cyano-2-(p-vinylphenyl) butanoic acid] and bis[[(2-nitrobenzyl)oxy]carbonyl]hexane-1,6-diamine has been designed and tested in neg. and pos. tone imaging. The resist operates on the principle of base-catalyzed decarboxylation. Amine generated by exposure to UV radiation catalyzes the thermal loss of carbon dioxide from the polymer side chain thereby changing the soly. of the resist film in aq. base developer. Image reversal is accomplished by in situ silylation of the exposed and thermolyzed film followed by dry development using an oxygen plasma. The resist shows high sensitivity to deep UV irradn., ca. 10 mJ/cm2, while image contrast is excellent.

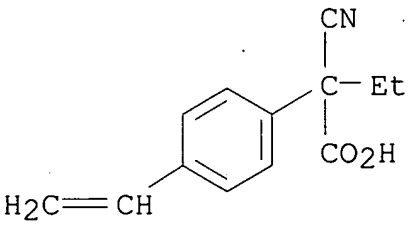
IT **158259-53-1P**, Poly[2-cyano-2-(p-vinylphenyl) butanoic acid] (**lithog**. chem. amplified resist material based on base-catalyzed decarboxylation contg.)

RN 158259-53-1 HCA

CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158259-52-0
CMF C13 H13 N O2



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **lithog** photoresist chem amplified cyanovinylphenylbutanoic acid; base catalyzed decarboxylation **lithog** polymer photoresist

IT Photoresists
(chem. amplified; **lithog**. resist material based on base-catalyzed decarboxylation contg. poly[2-cyano-2-(p-vinylphenyl) butanoic acid] and bis[[(2-nitrobenzyl)oxy]carbonyl]hexane-1,6-diamine)

IT Silylation
(for image reversal in **lithog**. chem. amplified photoresist material based on base-catalyzed decarboxylation contg. poly[2-cyano-2-(p-vinylphenyl) butanoic acid] and)

IT Decarboxylation

(photochem.; **lithog.** chem. amplified photoresist material based on base-catalyzed decarboxylation contg. poly[2-cyano-2-(p-vinylphenyl) butanoic acid] and)

IT **158259-53-1P**, Poly[2-cyano-2-(p-vinylphenyl) butanoic acid] (**lithog.** chem. amplified resist material based on base-catalyzed decarboxylation contg.)

IT 124-38-9, Carbon dioxide, formation (nonpreparative) (**lithog.** chem. amplified resist material based on base-catalyzed decarboxylation contg. poly[2-cyano-2-(p-vinylphenyl) butanoic acid] and)

L39 ANSWER 12 OF 18 HCA COPYRIGHT 2006 ACS on STN

126:257070 Electrophotographic manufacture of **printing plates** with improved transfer layer transfer properties and oil desensitization treatment and giving high-precision high-quality images. Kato, Eiichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 09054463 A2 **19970225** Heisei, 55 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-224530 19950810.

AB The title process involves formation of a electrophotog. toner image on electrophotog. photoreceptor having a release property, transfer of the toner image to first receptor, transfer of the toner image together with the transfer layer on the first receptor to a substrate that becomes **lithog.** printable hydrophilic surface in printing together with the transfer layer, then removing the transfer layer on the substrate by chem. treatment, wherein the transfer is made via any one of the following three methods: (i) on the entire electrophotog. photoreceptor surface with a toner image are formed first transfer layer (T1) and second transfer layer (T2), then the transfer layer and toner image are transferred on the first receptor; (ii) T2 and T1 are formed on the first receptor, then the toner image is transferred; (iii) after formation of T1 on the entire electrophotog. photoreceptor surface with a toner image and T2 on the first receptor, the toner image and T1 are transferred onto the T2 on the first receptor. T1 and T2 are formed by electrodeposition method of particles contg. mainly thermoplastic resins removable by chem. treatment, the T1 in contact with the photoreceptor is formed from particle contg. mainly thermoplastic particles contg. (A) resins having Tg 20-100° or softening point 38-120° and (B) resins having Tg ≤45° or softening point ≤60° (the component A has ≥2° higher softening point or Tg than the component B), and the T2 in contact with the first receptor is formed from particles contg. mainly resins with Tg 10-35° or softening point 30-50°.

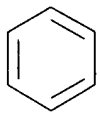
IT **188601-29-8P**

(electrophotog. manuf. of **printing plates** with improved transfer layer transfer properties and oil desensitization treatment and giving high-precision high-quality

images)
RN 188601-29-8 HCA
CN Benzoic acid, 4-ethenyl-, polymer with ethenylmethylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 25013-15-4
CMF C9 H10
CCI IDS

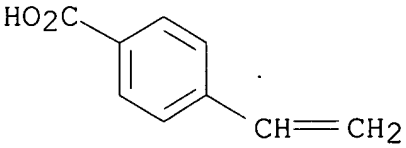


D1—Me

D1—CH═CH2

CM 2

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03G013-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog **printing plate** manuf
IT Electrophotography
Printing plates
(electrophotog. manuf. of **printing plates** with improved transfer layer transfer properties and oil desensitization treatment and giving high-precision high-quality images)
IT 9010-88-2P, Ethyl acrylate-methyl methacrylate copolymer

25135-39-1P, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer 25322-25-2P, Acrylic acid-methyl methacrylate copolymer 27155-22-2P, Acrylic acid-methyl acrylate-methyl methacrylate copolymer 67923-67-5P, Acrylic acid-ethyl acrylate-methyl acrylate-methyl methacrylate copolymer 72058-59-4P 152222-84-9P 157859-73-9P 176762-50-8P, Crotonic acid-vinyl acetate-vinyl valerate copolymer 188601-19-6P 188601-20-9P 188601-21-0P 188601-23-2P 188601-24-3P 188601-25-4P 188601-27-6P 188601-28-7P **188601-29-8P** 188604-81-1P
(electrophotog. manuf. of **printing plates** with improved transfer layer transfer properties and oil desensitization treatment and giving high-precision high-quality images)

L39 ANSWER 13 OF 18 HCA COPYRIGHT 2006 ACS on STN
125:342992 ~~Imaging~~ recording material for direct **printing plate**. Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08220752 A2 **19960830** Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-29774 19950217.

AB The material comprises a radiation-absorbing substance, an acid precursor, a compd. having ≥2 enol ether group R1C(R2):C(R3)O- (R1, R2, R3 = H, alkyl, aryl; ≥2 Rs may form satd. or unsatd. olefinic ring.), and an alkali-sol. resin. The material is useful for offset printing master. The material is suitable for near IR or IR recording without wavelength dependency.

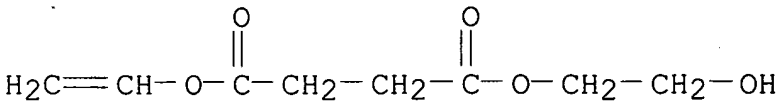
IT **183586-82-5D**, cyclic acetal deriv. with butyraldehyde
(photoimaging recording material for direct **printing plate**)

RN 183586-82-5 HCA

CN Butanedioic acid, ethenyl 2-hydroxyethyl ester, polymer with ethenol and ethenyl hydrogen butanedioate (9CI) (CA INDEX NAME)

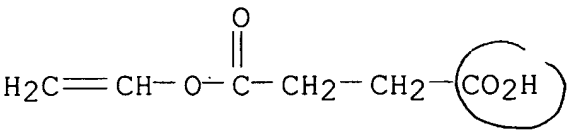
CM 1

CRN 183586-81-4
CMF C8 H12 O5



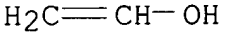
CM 2

CRN 44912-22-3
CMF C6 H8 O4



CM 3

CRN 557-75-5
CMF C2 H4 O



IC ICM G03F007-027
ICS B41C001-05; G03F007-004; G03F007-028
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
ST printing master photoimaging material; **lithog** plate direct photoimaging material; enol ether compd photoimaging compn
IT Photoimaging compositions and processes
(photoimaging recording material for direct **printing plate**)
IT **Lithographic plates**
(**printing** master; photoimaging recording material for direct **printing plate**)
IT Vinyl acetal polymers
(butyrals, polymer derivs.; photoimaging recording material for direct **printing plate**)
IT 3712-60-5 52411-04-8 72015-22-6 146793-37-5 150610-14-3 150610-23-4 183586-85-8 183586-89-2
(photoimaging recording material for direct **printing plate**)
IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer **183586-82-5D**, cyclic acetal deriv. with butyraldehyde
(photoimaging recording material for direct **printing plate**)

L39 ANSWER 14 OF 18 HCA COPYRIGHT 2006 ACS on STN
125:261248 Photoresist composition with photosensitive base generator. Cameron, James F.; Frechet, Jean M. J.; Leung, Man-kit; Niesert, Claus-peter; Macdonald, Scott A.; Willson, Carlton G. (International Business Machines Corporation, USA). U.S. US 5545509 A **19960813**, 9 pp., Cont.-in-part of U.S. Ser. No. 981,033,abandoned. (English). CODEN: USXXAM. APPLICATION: US 1994-190716 19940201. PRIORITY: US 1992-981033 19921124.

AB The present invention relates to an improved **lithog**. photoresist compn. comprising a photosensitive base generator. The compn. is useful in the manuf. of integrated circuits.

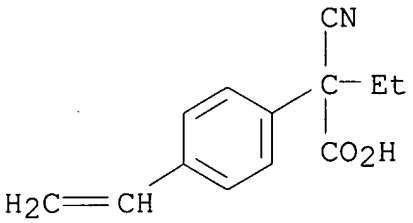
IT **158259-53-1P**
(prepn. and use in prepg. photoresists)

RN 158259-53-1 HCA

CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158259-52-0
CMF C13 H13 N O2



IC ICM G03C001-492
INCL 430270100

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **158259-53-1P** 158259-56-4P, Poly[tert-butyl 2-cyano-2-(p-vinylphenyl)butyrate]
(prepn. and use in prepg. photoresists)

L39 ANSWER 15 OF 18 HCA COPYRIGHT 2006 ACS on STN

121:217673 Photoresist composition. Cameron, James Field; Frechet, Jean M. J.; Leung, Man Kit; Niesert, Claus-peter; MacDonald, Scott Arthur; Willson, Carlton Grant (International Business Machines Corp., USA). Eur. Pat. Appl. EP 599571 A2 **19940601**, 11 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1993-309273 19931122. PRIORITY: US 1992-981033 19921124.

AB Provided is an improved **lithog**. photoresist compn. comprising a photosensitive base generator, a polymer, and a base labile compd. The compn. is useful in the manuf. of integrated circuits.

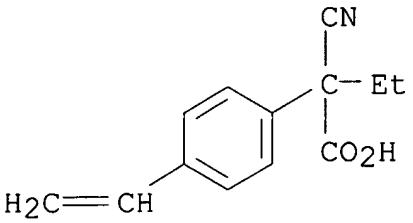
IT **158259-53-1P**
(prepn. and use of, photoresist compn. using)

RN 158259-53-1 HCA

CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 158259-52-0
CMF C13 H13 N O2



IC ICM G03F007-038
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist compn base generator **lithog**
IT **Lithography**
(photoresist compn. for)
IT Resists
(photo-, compn., for **lithog**. and manuf. of integrated circuit)
IT **158259-53-1P**
(prepn. and use of, photoresist compn. using)

L39 ANSWER 16 OF 18 HCA COPYRIGHT 2006 ACS on STN
121:191363 Electrophotographic manufacture of **lithographic** plate. Kato, Eiichi; Ohsawa, Sadao; Kasai, Seishi (Fuji Photo Film Co., Ltd., Japan). PCT Int. Appl. WO 9316418 A1 **19930819**, 259 pp. DESIGNATED STATES: W: DE, JP, US. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1993-JP179 19930212. PRIORITY: JP 1992-57269 19920212; JP 1992-116794 19920410; JP 1992-161650 19920529; JP 1992-169880 19920605; JP 1992-194712 19920630; JP 1992-201811 19920707.
AB The title manuf. comprises the steps of forming an electrophotog. toner image on a strippable transfer layer based on a chem. removable thermoplastic resin (e.g., by dissoln. with an aq. alkali soln.) and formed on the releasable surface of an electrophotog. photoreceptor, thermally transfer the toner image along with the transfer layer to a receptor whose surface is capable of becoming hydrophilic for **lithog**. printing, and chem. removing the thermoplastic resin (desensitization of a **lithog**. plate) of the transfer layer on the receptor (removing the thermoplastic resin of the transfer layer at the nonimage area to expose the hydrophilic surface of the receptor support such as an Al support and save the thermoplastic resin of the transfer layer at the toner

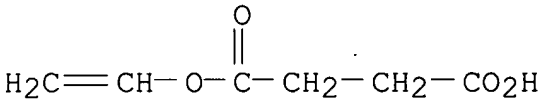
image area as a printing image of a **lithog.** plate). The invention, also suited for laser scanning exposure, provides durable and stable **lithog.** plates which produce good quality images.

IT **157859-80-8 157860-48-5**
(electrophotog. photoreceptor having strippable transfer layer of)

RN 157859-80-8 HCA
CN Butanedioic acid, monoethenyl ester, polymer with ethenyl acetate and ethoxyethene (9CI) (CA INDEX NAME)

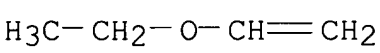
CM 1

CRN 44912-22-3
CMF C6 H8 O4



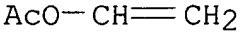
CM 2

CRN 109-92-2
CMF C4 H8 O



CM 3

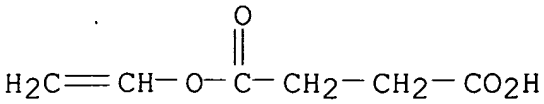
CRN 108-05-4
CMF C4 H6 O2



RN 157860-48-5 HCA
CN Butanedioic acid, monoethenyl ester, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

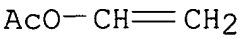
CM 1

CRN 44912-22-3
CMF C6 H8 O4



CM 2

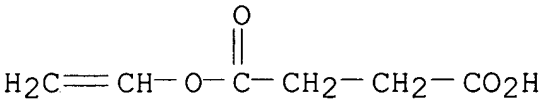
CRN 108-05-4
CMF C4 H6 O2



IT **157859-16-0P 157859-19-3P**
(latex, prepn. and use of, as thermoplastic resin grains for strippable transfer layer)
RN 157859-16-0 HCA
CN Butanedioic acid, monoethenyl ester, polymer with diethenylbenzene, dodecyl 2-methyl-2-propenoate and ethenyl acetate, graft (9CI) (CA INDEX NAME)

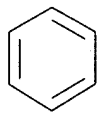
CM 1

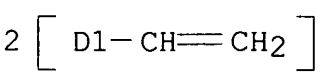
CRN 44912-22-3
CMF C6 H8 O4



CM 2

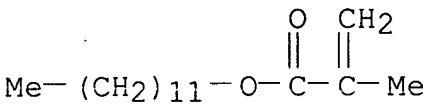
CRN 1321-74-0
CMF C10 H10
CCI IDS





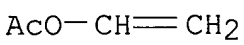
CM 3

CRN 142-90-5
CMF C16 H30 O2



CM 4

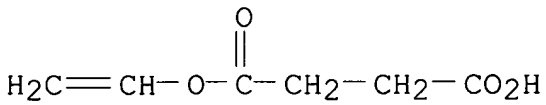
CRN 108-05-4
CMF C4 H6 O2



RN 157859-19-3 HCA
CN Butanedioic acid, monoethenyl ester, polymer with diethenylbenzene, dodecyl 2-methyl-2-propenoate, ethenyl acetate and ethenyl propanoate, graft (9CI) (CA INDEX NAME)

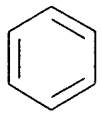
CM 1

CRN 44912-22-3
CMF C6 H8 O4



CM 2

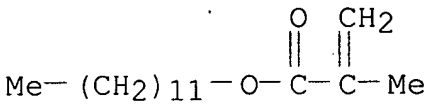
CRN 1321-74-0
CMF C10 H10
CCI IDS



2 [D1—CH═CH2]

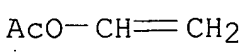
CM 3

CRN 142-90-5
CMF C16 H30 O2



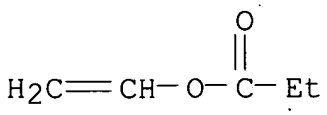
CM 4

CRN 108-05-4
CMF C4 H6 O2



CM 5

CRN 105-38-4
CMF C5 H8 O2



IC ICM G03G013-26
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **lithog** plate electrophotog manuf; electrophotog transfer layer **lithog** plate; photoreceptor electrophotog thermal transfer layer

IT **Lithographic** plates
(electrophotog. manuf. of, using releasable photoreceptor and strippable transfer layer)

IT 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 25133-97-5, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer 40045-03-2, Ethyl methacrylate-glycidyl methacrylate-2-hydroxyethyl methacrylate copolymer 155247-40-8 155247-42-0 157859-84-2 157859-86-4 157859-87-5 157859-88-6 157859-90-0 157859-91-1
(binders, electrophotog. photosensitive layer contg., for **lithog.** plate)

IT 57-55-6, 1,2-Propanediol, uses 85-44-9, 1,3-Isobenzofurandione 111-33-1 526-95-4, Gluconic acid 926-63-6, N, N-Dimethylpropylamine 2224-15-9, Ethylenediglycidyl ether 2550-02-9, Propyltriethoxysilane 27431-62-5 42055-15-2, 3-(N-Methylamino)propanol
(crosslinking agent, electrophotog. photosensitive layer contg., for **lithog.** plate)

IT 25189-12-2 26338-06-7, Ethyl acrylate-methacrylic acid-methyl acrylate copolymer 26589-39-9, Methacrylic acid-methyl acrylate copolymer 26936-24-3 27155-22-2 32517-13-8 59213-43-3 65697-21-4 79042-18-5 129636-54-0 140143-08-4 157859-72-8 157859-73-9 157859-74-0 157859-75-1 157859-76-2 157859-77-3 157859-78-4 157859-79-5 **157859-80-8** 157859-81-9 157859-82-0 157859-92-2 157859-93-3 157859-94-4 157859-95-5 157859-96-6 157859-98-8 157859-99-9 157860-01-0 157860-02-1 157860-04-3 157860-05-4 157860-06-5 157860-08-7 157860-10-1 157860-11-2 157860-12-3 157860-14-5 157860-16-7 157860-18-9 157860-23-6 157860-24-7 157860-25-8 157860-26-9 157860-28-1 157860-30-5 157860-32-7 157860-34-9 157860-36-1 157860-37-2 157860-39-4 157860-40-7 157860-41-8 157860-42-9 157860-43-0 157860-44-1 157860-45-2 157860-46-3 157860-47-4 **157860-48-5** 157860-49-6 157860-51-0 157860-52-1 157860-53-2 157860-54-3 157860-56-5 157860-58-7 157860-60-1 157860-63-4 157860-65-6 157860-67-8 157960-12-8
(electrophotog. photoreceptor having strippable transfer layer of)

IT 157859-02-4P 157859-03-5P 157859-04-6P 157859-05-7P 157859-06-8P 157859-07-9P 157859-08-0P 157859-09-1P 157859-10-4P 157859-11-5P 157859-13-7P 157859-14-8P 157859-15-9P **157859-16-0P** 157859-17-1P 157859-18-2P **157859-19-3P** 157859-21-7P 157859-23-9P 157859-25-1P 157859-27-3P 157859-28-4P 157859-29-5P 157859-30-8P 157859-32-0P 157859-34-2P 157859-36-4P 157859-38-6P 157859-39-7P 157859-41-1P 157859-43-3P 157859-45-5P 157859-46-6P 157859-48-8P 157859-50-2P 157859-52-4P 157859-55-7P 157859-57-9P 157859-59-1P 157859-61-5P 157859-62-6P 157859-64-8P 157859-67-1P 157859-69-3P

157859-71-7P
(latex, prepn. and use of, as thermoplastic resin grains for strippable transfer layer)

IT 79-41-4DP, 2-perfluoroalkylethyl ester, copolymers with 2-hydroxyethyl methacrylate, Et methacrylate, and glycidyl methacrylate 123109-43-3P 144541-84-4P 150624-67-2P 150624-77-4P 150625-01-7P 150625-03-9P 150625-19-7P 150625-22-2P 150642-22-1P 150642-24-3P 155292-83-4P 155292-84-5P 155292-85-6P 155292-86-7P 155292-87-8P 155292-88-9P 155292-90-3P 155292-92-5P 155292-93-6P 155292-94-7P 155292-96-9P 155292-98-1P 155293-26-8P 157966-19-3P
(prepn. and use of, as releasable component for electrophotog. photoreceptor, for **lithog**. plate)

IT 97-63-2DP, Ethyl methacrylate, block copolymers with glycidyl methacrylate and 2-perfluoroalkylethyl methacrylate 106-91-2DP, block copolymers with Et methacrylate and 2-perfluoroalkylethyl methacrylate 868-77-9DP, graft copolymers with 2-perfluoroalkylethyl methacrylate
(prepn. and use of, for releasable electrophotog. photoreceptor surface, for **lithog**. plate)

IT 150624-89-8
(star-block, as releasable component for electrophotog. photoreceptor, for **lithog**. plate)

L39 ANSWER 17 OF 18 HCA COPYRIGHT 2006 ACS on STN

120:177970 Resist materials design: base-catalyzed chemical amplification. Wilson, C. G.; Cameron, J. F.; MacDonald, S. A.; Niesert, C. P. (Almaden Res. Cent., IBM, San Jose, CA, 95151, USA). Proceedings of SPIE-The International Society for Optical Engineering, 1925(Advances in Resist Technology and Processing X), 354-65 (English) **1993**. CODEN: PSISDG. ISSN: 0277-786X.

AB The authors describe the initial results on base catalyzed chem. amplified deep-UV photoresists. Photogenerated amines were used as catalysts for the decarboxylation of carboxylic acids. Two approaches to building resists around this chem. were investigated. Decarboxylation of a low mol. wt. carboxylic acid led to base induced dissoln. inhibition of a phenolic polymer giving neg. tone images. A carboxylic acid polymer was synthesized which also is susceptible towards base catalyzed decarboxylation. Wet development of this resist material gives neg. tone images. Site specific gas-phase silylation of the carboxylic acid allows the use of this material in a pos. tone dry develop process. A 0.5 μm line-space pattern obtained by this dry develop process illustrates the potential of base-catalyzed chem. amplification.

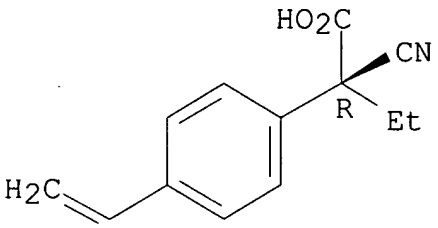
IT **153463-81-1**
(**lithog**. base catalyzed chem. amplified deep-UV photoresist contg., photogeneration of amine catalyst in)

RN 153463-81-1 HCA
CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, (R)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 153463-80-0
CMF C13 H13 N O2

Absolute stereochemistry.



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST base catalyzed chem amplification **lithog** resist; amine catalyst photogeneration chem amplification photoresist
IT Resists
(photo-, chem. amplification, for deep-UV **lithog.**, based on photogeneration of amine catalyst for decarboxylation)
IT 153463-82-2
(**lithog.** base catalyzed chem. amplified deep-UV photoresist contg., photogeneration of amine catalyst from)
IT 24979-70-2, Poly(p-hydroxystyrene) 153463-79-7 **153463-81-1**
(**lithog.** base catalyzed chem. amplified deep-UV photoresist contg., photogeneration of amine catalyst in)

L39 ANSWER 18 OF 18 HCA COPYRIGHT 2006 ACS on STN
120:120512 Photogenerated base and chemical amplification: a new resist based on catalyzed decarboxylation. Leung, Man Kit; Frechet, Jean M. J.; Cameron, James F.; Willson, C. Grant (Dep. Chem., Cornell Univ., Ithaca, NY, 14853-1301, USA). Polymeric Materials Science and Engineering, 68, 30-1 (English) **1993**. CODEN: PMSEDG. ISSN: 0743-0515.
AB A design and synthesis are described of poly[2-cyano-2-(p-vinylphenyl)-butanoic acid] (I) for chem. amplified **photolithog.** through base catalyzed decarboxylation. Properties and thermal stability of I are studied. Contrast curves for a resist contg. I 90 and an amine photogenerator 10% were obtained under different processing conditions. With post-baking at 135° for 5 min, and dil. AZ312MIF developer sensitivity of

1.4 mJ/cm-2 and contrast of 13.7 were obtained.

IT **152588-39-1P**
(**lithog**. chem. amplification photoresist based on catalyzed decarboxylation of, synthesis and properties of)

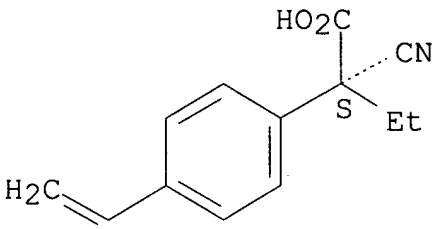
RN 152588-39-1 HCA

CN Benzeneacetic acid, α-cyano-4-ethenyl-α-ethyl-, (S)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 152588-38-0
CMF C13 H13 N O2

Absolute stereochemistry.



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **lithog** photoresist polycyanovinylphenylbutanoic acid

IT **152588-39-1P**
(**lithog**. chem. amplification photoresist based on catalyzed decarboxylation of, synthesis and properties of)

IT 75-59-2, Tetramethylammonium hydroxide 102-71-6, Triethanolamine, uses 152986-64-6, AZ 312MIF
(**lithog**. developer, sensitivity of chem. amplification photoresist based on poly[cyano(vinylphenyl)butanoic acid] by processing with)

IT 152588-40-4P
(prepn. and polymn. of, in synthesis of poly[cyano(vinylphenyl)butanoic acid] **lithog**. photoresist)

IT 152588-41-5P
(prepn. and reaction of, in synthesis of poly[cyano(vinylphenyl)butanoic acid] **lithog**. photoresist)

IT 1592-20-7
(reaction of, with cyanide, in synthesis of poly[cyano(vinylphenyl)butanoic acid] **lithog**. photoresist)

IT 1592-11-6

(reaction of, with ethylbromide, in synthesis of poly[cyano(vinylphenyl)butanoic acid] **lithog.** photoresist)

=> D L40 1-10 CBIB ABS HITSTR HITIND

L40 ANSWER 1 OF 10 HCA COPYRIGHT 2006 ACS on STN
140:329560 Method of plate-making positive-working **lithographic printing plate**. Aogo, Toshiaki; Onishi, Hiroaki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004109442 A2 20040408, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-271435 20020918.

AB The pos.-working **lithog. printing** master **plate** contains an IR absorbing dye and a water-insol. and alkali-sol. resin in a **heat-sensitive** layer on a water-insol. resin- and alkali-sol. resin-based subbing layer formed on the hydrophilic surface of support, in which the soly. of the **heat sensitive** layer in an alkali aq. soln. increases upon receiving an IR irradn. The pos.-working **lithog. printing** master **plate** receives an IR imagewise exposure, and is developed using an alkali developer which contains ≥1 water-sol. polymer compd. having sulfonic acid group, carboxylic acid group, phosphonic acid group, and /or salt thereof, a buffer compd., and a base compd.

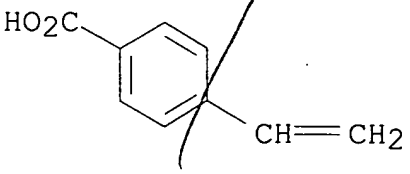
IT **28391-39-1**
(developer for plate-making of pos.-working **lithog. printing plate**)

RN 28391-39-1 HCA

CN Benzoic acid, 4-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-32
ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST plate making pos working **lithog** printing developer polymer compd

IT Phenolic resins, uses
(novolak; plate-making of pos.-working **lithog. printing plate** from)

IT 25087-26-7, Methacrylic acid homopolymer 25300-64-5, Maleic acid-styrene copolymer 27754-99-0 **28391-39-1** 54640-82-3 83328-59-0
(developer for plate-making of pos.-working **lithog. printing plate**)

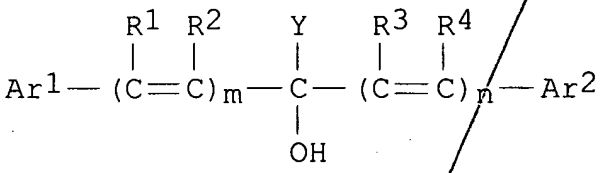
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 134127-48-3
(plate-making of pos.-working **lithog. printing plate** from)

L40 ANSWER 2 OF 10 HCA COPYRIGHT 2006 ACS on STN

140:294816 **Infrared sensitive** composition and **lithographic printing plate** precursor.

Endo, Akihiro (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1403039 A1 20040331, 26 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-20590 20030918. PRIORITY: JP 2002-285697 20020930.

GI



I

AB An **IR sensitive** compn. and a **lithog. printing plate** precursor having a large difference in alkali soly. between the exposed portions and unexposed portions (dissoln. discrimination), an excellent latitude in development, and a high sensitivity can be provided when the compn. is used for the image-forming layer of a **lithog. printing plate** precursor, which is an **IR sensitive** compn. comprising an alkali-sol. resin having a phenolic hydroxyl group (A), a light-heat converting substance (B) and a leucohydroxy dye (C). The leucohydroxy dye is represented by the general formula I (Ar1, Ar2 = aryl, heteroaryl; R1-R4 = H, alkyl; Y = H, alkyl, aryl, heteroaryl; at least one of Ar1, Ar2 and Y has as a substituent a hydroxy group, an amino group, a monoalkylamino group

or a dialkylamino group at the ortho or para position; two of Ar1, Ar2 and Y may link together to from a ring; m, n = 0 or 1).

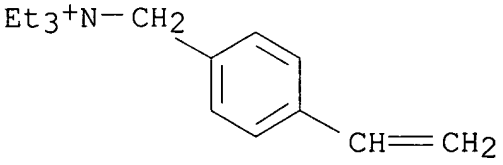
IT **220227-02-1**
(**IR sensitive** compn. and **lithog.** **printing plate** precursor)

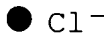
RN 220227-02-1 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

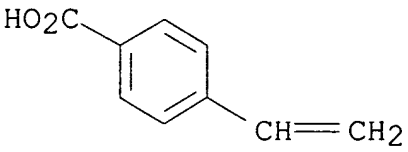
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 2

CRN 1075-49-6
CMF C9 H8 O2



IC ICM B41C001-10
ICS G03F007-004; G03C001-73

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **lithog printing plate** precursor
IR sensitive compn

IT **Lithographic** plates
(**IR sensitive** compn. and **lithog.** **printing plate** precursor)

IT 467-63-0 510-13-4 603-48-5 6948-88-5 23705-78-4

103250-84-6, m-Cresol-p-cresol-phenol copolymer **220227-02-1**
676259-57-7
(**IR sensitive** compn. and **lithog.**
printing plate precursor)

L40 ANSWER 3 OF 10 HCA COPYRIGHT 2006 ACS on STN
139:188366 Positive-working **heat sensitive**
lithography printing plate with high
development latitude. Watanabe, Noriaki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003241388 A2 20030827, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-43565 20020220.

AB Title **printing plate** is obtained by laminating an aluminum substrate, which has been subjected to anode oxidative treatment, an undercoat comprising polymer having acid group-contg. components and onium group-contg. components, a middle layer comprising a resin which is water-insol. but sol. in alkali, and a **heat-sensitive** layer which comprises a water-insol. but alkali-sol. resin and an IR-absorbing dye and becomes more sol. in aq. alkali upon heating.

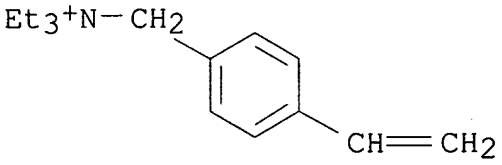
IT **220227-02-1 252721-97-4 252721-98-5**
(undercoat; pos.-working **heat sensitive**
lithog. printing plate with high
development latitude)

RN 220227-02-1 HCA

CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

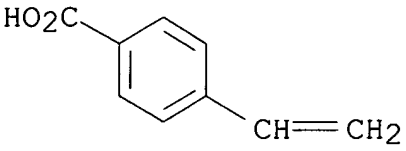
CRN 14350-43-7
CMF C15 H24 N . Cl



● Cl^-

CM 2

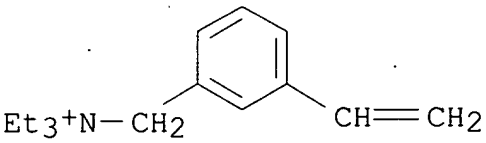
CRN 1075-49-6
CMF C9 H8 O2

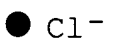


RN 252721-97-4 HCA
CN Benzenemethanaminium, 3-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid and 4-ethenyl-N,N,N-triethylbenzenemethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

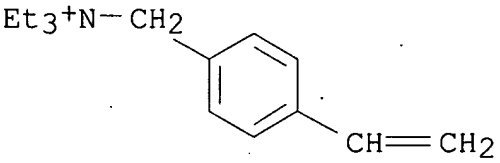
CRN 91277-26-8
CMF C15 H24 N . Cl





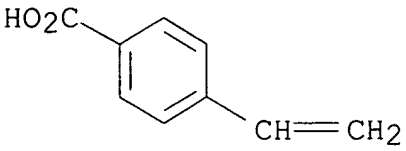
CM 2

CRN 14350-43-7
CMF C15 H24 N . Cl



CM 3

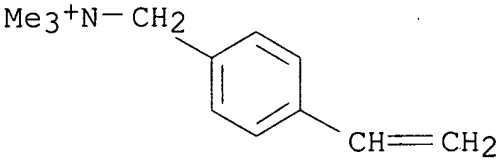
CRN 1075-49-6
CMF C9 H8 O2

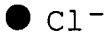


RN 252721-98-5 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-trimethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

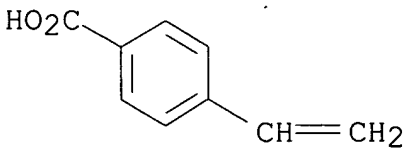
CRN 7538-38-7
CMF C12 H18 N . Cl





CM 2

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-11
ICS B41N001-14; G03F007-00; G03F007-004; G03F007-039
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos working **heat sensitive lithog printing plate**

IT Phenolic resins, uses
(novolak, middle layer and **heat-sensitive** layer; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT **Lithographic** plates
(planog.; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT 134127-48-3
(IR-absorbing dye; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT 7429-90-5, Aluminum, uses
(alloy; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
(middle layer and **heat-sensitive** layer; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT 141634-00-6
(middle layer; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

IT **220227-02-1 252721-97-4 252721-98-5**
(undercoat; pos.-working **heat sensitive lithog. printing plate** with high development latitude)

L40 ANSWER 4 OF 10 HCA COPYRIGHT 2006 ACS on STN
138:329007 Presensitized **lithography** plates for IR laser direct platemaking with suppressed scum. Kawauchi, Ikuo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003114519 A2 20030418, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-309942 20011005.

AB The **lithog.** plate has a **heat-sensitive** layer contg. (A) photothermal converters, (B) aq. alkali-sol. resins bearing phenolic OH, and (C) waxes which suppress scum on developing, represented by compds. bearing 1-6 groups represented by general formula R1YCOXR2 (X = O, S, NR3; Y = NR3, single bond; R1 = C1-32 alkylene, arylene; R2, R3 = H, C1-18 alkyl, alkenyl, aryl; R1 and/or R2 may bear OH, CO2H, SO3H, sulfinic acid group, PO3H2, phosphonic acid group).

IT **216861-97-1**
(undercoat; presensitized **lithog.** plates with

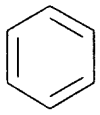
wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

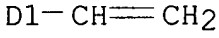
RN 216861-97-1 HCA

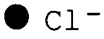
CN Benzenemethanaminium, ar-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 51241-16-8
CMF C15 H24 N . Cl
CCI IDS

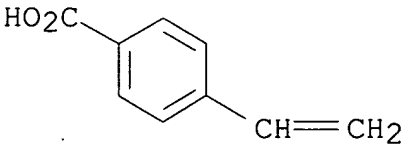






CM 2

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-00
ICS C09K003-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **lithog** plate IR laser direct platemaking; wax novolak **heat sensitive** layer **lithog**; presensitized **lithog** plate **heat sensitive** layer wax; pos IR laser **lithog** plate master

IT Polyurethanes, uses
(acrylic, fluorine-contg.; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT Fluoropolymers, uses
(acrylic-polyurethane-; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT Phenolic resins, uses
(novolak, **heat-sensitive** layer binder; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT Cyanine dyes
(photothermal converter; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT Acrylic polymers, uses
(polyoxyalkylene-, fluorine-contg., graft; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT **Lithographic** plates
(presensitized; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions
(monomer prepn. from; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
(monomer; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT 134127-48-3
(photothermal converter; presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

IT 124996-93-6P, Acrylonitrile-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
(presensitized **lithog**. plates with wax-contg. **heat-sensitive** layer for **IR** laser

direct platemaking with suppressed scum)

IT 83563-92-2 92739-54-3 451462-65-0 511531-81-0 511531-82-1
511531-83-2 511531-84-3 511531-85-4 511531-86-5 511531-87-6
511531-88-7 511531-89-8 511531-90-1 511531-91-2 511531-92-3
511531-93-4 511531-94-5 511531-96-7
(presensitized **lithog.** plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

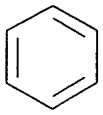
IT **216861-97-1**
(undercoat; presensitized **lithog.** plates with wax-contg. **heat-sensitive** layer for **IR** laser direct platemaking with suppressed scum)

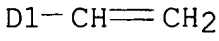
L40 ANSWER 5 OF 10 HCA COPYRIGHT 2006 ACS on STN
138:80726 Aluminum-based original plate for **lithographic** plate and manufacture of the plate. Matsuura, Mutsumi; Uesugi, Akio; Miwa, Hideki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003001963 A2 20030108 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-189530 20010622.

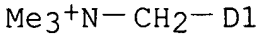
AB The plate involves an Al support and a pos. working **IR** laser-**sensitive** substance layer, whose soly. to a developer is enhanced by IR laser irradn., on ≥1 roughened surface of the support. The Al plate is that mech. roughened on ≥1 surface by rubbing by a rotating brush under applying of polishing particles with av. diam. 5-70 μm contg. ≥60 wt.% SiO2, etched, and electrolytically etched in an acidic electrolytic soln. The plate is manufd. by the process involving roughening of the Al support and forming of the **IR** laser-**sensitive** layer on the support. The original plate is for laser platemaking to give a **lithog.** plate showing prevention of staining on blanket roll, etc., because the roughened support surface is free from scratches.

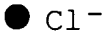
IT **214279-68-2P 220227-02-1P**, Triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer **252721-97-4P**, Triethyl(m-vinylbenzyl)ammonium chloride-triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer
(surface-roughened aluminum original **lithog.** plate
ing **IR** laser-**sensitive** layer)

m, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer
ic acid (9CI) (CA INDEX NAME)



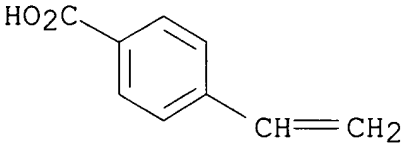






CM 2

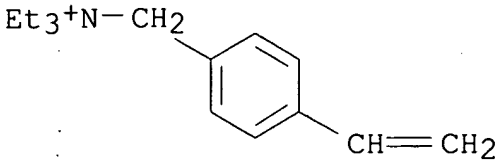
CRN 1075-49-6
CMF C9 H8 O2

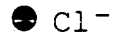


RN 220227-02-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

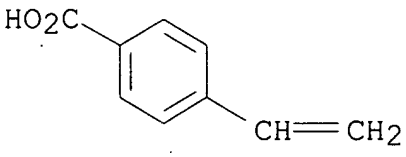
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 2

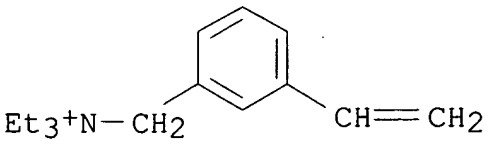
CRN 1075-49-6
CMF C9 H8 O2

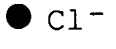


RN 252721-97-4 HCA
CN Benzenemethanaminium, 3-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid and 4-ethenyl-N,N,N-triethylbenzenemethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

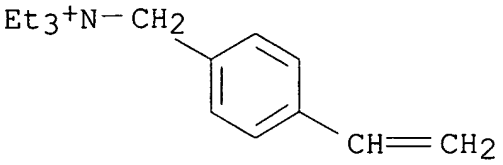
CRN 91277-26-8
CMF C15 H24 N . Cl

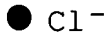




CM 2

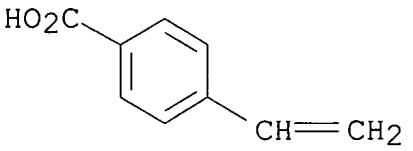
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 3

CRN 1075-49-6
CMF C9 H8 O2



IC ICM B41N003-04
ICS B41N001-08; B41N003-03; C25D011-08; C25F003-04; G03F007-00; G03F007-004; G03F007-032; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 56

ST aluminum support **lithog** original plate; mech electrolytic surface roughening aluminum support; pos working **IR** laser **sensitive** layer; silica particle polishing aluminum surface roughening

IT Anodization
Electrolysis
Etching
Polishing materials
(for surface roughening of aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)

IT Brushes
(rotating; for surface roughening of aluminum original **lithog.** plate having pos.-working **IR** laser-

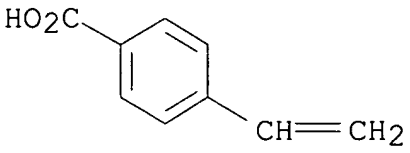
sensitive layer)
IT Laser printers
Lithographic plates
(surface-roughened aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)
IT 7647-01-0, Hydrochloric acid, uses 7697-37-2, Nitric acid, uses
(in electrolytic solns.; for surface roughening of aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)
IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions
(monomer from; for surface-roughened aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)
IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
(monomer; for surface-roughened aluminum original **lithog**. plate having pos.-working **IR** laser-**sensitive** layer)
IT 7631-86-9, Silica, uses
(particles in polishing material; for surface roughening of aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)
IT 124996-93-6P, Acrylonitrile-ethyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer **214279-68-2P** **220227-02-1P**, Triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer **252721-97-4P**, Triethyl(m-vinylbenzyl)ammonium chloride-triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer
(surface-roughened aluminum original **lithog.** plate having pos.-working **IR** laser-**sensitive** layer)

L40 ANSWER 6 OF 10 HCA COPYRIGHT 2006 ACS on STN
137:224178 Negative working **lithographic printing** **plate** master suitable for direct digital platemaking by IR laser. Aoshima, Keitaro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002258467 A2 **20020911**, 22 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-61475 20010306.
AB The title **lithog. printing plate** master comprises a support, an alkali-developable photosensitive layer contg. a photothermal conversion material and crosslinkable/polymerizable compd., and an overcoat layer contg. a hydrophobic, alkali-sol. polymer. The **printing** **plate** master shows improved **IR** laser **sensitivity**, suppressed ablation of the photosensitive layer, and improved ink reception.
IT **28854-56-0**, Styrene-p-vinylbenzoic acid copolymer
(hydrophobic alkali-sol.; in overcoat layer of neg. working **lithog. printing plate** master

suitable for direct digital platemaking by IR laser)
RN 28854-56-0 HCA
CN Benzoic acid, 4-ethenyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

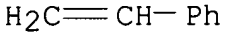
CM 1

CRN 1075-49-6
CMF C9 H8 O2



CM 2

CRN 100-42-5
CMF C8 H8



IC ICM G03F007-00
ICS B41N001-14; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **lithog printing plate** master neg working direct digital platemaking; IR laser direct digital platemaking **lithog printing plate** master
IT Fluoropolymers, uses
(in alkali-developable photosensitive layer of neg. working **lithog. printing plate** master suitable for direct digital platemaking by IR laser)
IT **Lithographic** plates
(neg. working **lithog. printing plate** master suitable for direct digital platemaking by IR laser)
IT Photoimaging materials
(photopolymerizable; neg. working **lithog. printing plate** master suitable for direct digital platemaking by IR laser)
IT 134127-48-3
(IR absorber; in alkali-developable photosensitive layer of neg. working **lithog. printing plate**

master suitable for direct digital platemaking by IR laser)

IT **28854-56-0**, Styrene-p-vinylbenzoic acid copolymer
457625-40-0, Ethyl methacrylate-monoacryloyloxyethyl succinate copolymer
(hydrophobic alkali-sol.; in overcoat layer of neg. working **lithog. printing plate** master
suitable for direct digital platemaking by IR laser)

IT 85-43-8, Tetrahydrophthalic acid anhydride 104-15-4, p-Toluene sulfonic acid, uses 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 29570-58-9, Dipentaerythritol hexaacrylate 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 207793-01-9
(in alkali-developable photosensitive layer of neg. working **lithog. printing plate** master
suitable for direct digital platemaking by IR laser)

IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
(in alkali-developable photosensitive layer of neg. working **lithog. printing plate** master
suitable for direct digital platemaking by IR laser)

IT 19600-49-8, Triphenylsulfonium acetate
(onium salt; in alkali-developable photosensitive layer of neg. working **lithog. printing plate**
master suitable for direct digital platemaking by IR laser)

L40 ANSWER 7 OF 10 HCA COPYRIGHT 2006 ACS on STN

136:239137 Thermal positive-type **lithographic** plate using anodized aluminum support. Endo, Tadashi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002082443 A2 **20020322**, 36 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-272895 20000908.

AB In the material comprising a coarsened and anodized Al support coated with a photosensitive layer whose soly. to an alk. developer changes by heating, the anodized film has micropores with av. size ≤20 nm and d. ≥300 no./μm2. The material shows high sensitivity.

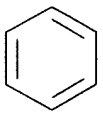
IT **214279-68-2P**, p-Vinylbenzoic acid-vinylbenzyltrimethylammonium chloride copolymer **220227-02-1P**, Triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer **252721-97-4P**, Triethyl(m-vinylbenzyl)ammonium chloride-triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer
(intermediate layer; **heat-sensitive lithog.** plate using anodized aluminum support with size-controlled micropores)

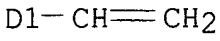
RN 214279-68-2 HCA

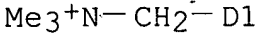
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

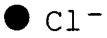
CM 1

CRN 26616-35-3
CMF C12 H18 N . Cl
CCI IDS



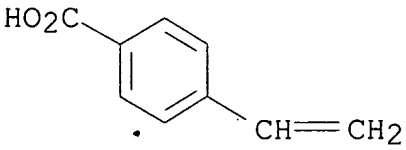






CM 2

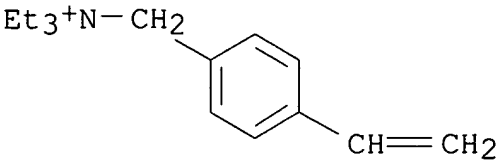
CRN 1075-49-6
CMF C9 H8 O2

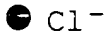


RN 220227-02-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

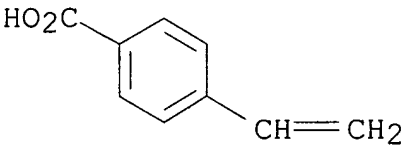
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 2

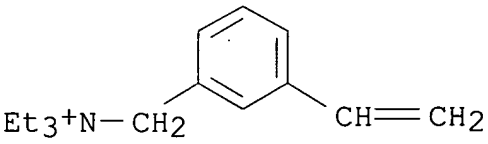
CRN 1075-49-6
CMF C9 H8 O2

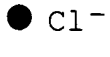


RN 252721-97-4 HCA
CN Benzenemethanaminium, 3-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid and 4-ethenyl-N,N,N-triethylbenzenemethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

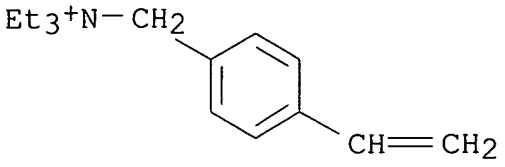
CRN 91277-26-8
CMF C15 H24 N . Cl

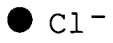




CM 2

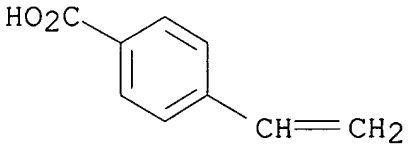
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 3

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-09
ICS B41N001-08; B41N001-14; B41N003-03; C25D011-04; C25D011-16; G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST aluminum support anodization film micropore **lithog** plate
IT Anodization
Lithographic plates
(**heat-sensitive lithog.** plate using anodized aluminum support with size-controlled micropores)
IT Phenolic resins, uses
(**heat-sensitive lithog.** plate using anodized aluminum support with size-controlled micropores)
IT 62200-40-2
(**heat-sensitive lithog.** plate using anodized aluminum support with size-controlled micropores)
IT **214279-68-2P**, p-Vinylbenzoic acid-vinylbenzyltrimethylammonium chloride copolymer **220227-02-1P**, Triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer **252721-97-4P**, Triethyl(m-vinylbenzyl)ammonium

chloride-triethyl(p-vinylbenzyl)ammonium chloride-p-vinylbenzoic acid copolymer
(intermediate layer; **heat-sensitive** **lithog**. plate using anodized aluminum support with size-controlled micropores)
IT 124996-93-6P, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer
(photosensitive layer; **heat-sensitive** **lithog**. plate using anodized aluminum support with size-controlled micropores)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
(photosensitive layer; **heat-sensitive** **lithog**. plate using anodized aluminum support with size-controlled micropores)

L40 ANSWER 8 OF 10 HCA COPYRIGHT 2006 ACS on STN
132:286344 **IR** laser-**sensitive** material for planographic **printing plate** preparation. Kawauchi, Ikuo (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 992850 A2 **20000412**, 40 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 1999-119179 19991006. PRIORITY: JP 1998-284617 19981006.

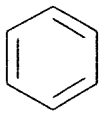
AB An **IR** laser-**sensitive** material for planog. **printing plate** prepn. by directly inscribing digital signals of a computer with an IR laser comprises a substrate having a hydrophilic surface, an intermediate layer contg. a polymer including a monomer having an acid group and a monomer having an onium group, and a photosensitive layer comprising (A) an alkali-sol. polymer, (B) a compd. which has a function to reduce the soly. of the alkali-sol. polymer in an alk. aq. soln., and (C) a compd. which generates heat by absorbing an IR laser light.

IT **214279-68-2**
(**IR** laser-**sensitive** photoimaging materials for planog. **printing plate** prepn. contg.)

RN 214279-68-2 HCA
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 26616-35-3
CMF C12 H18 N . Cl
CCI IDS



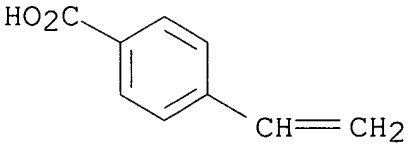
D1— CH═ CH_2

Me_3^+N— CH_2— D1

● Cl^-

CM 2

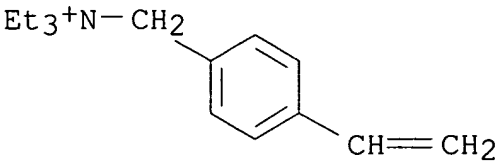
CRN 1075-49-6
CMF C9 H8 O2

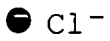


IT **220227-02-1P 252721-97-4P 263711-33-7P**
(prepn. and use in **IR** laser-**sensitive** photoimaging materials for planog. **printing plate** prepn.)
RN 220227-02-1 HCA
CN Benzenemethanaminium, 4-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

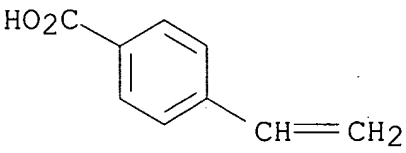
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 2

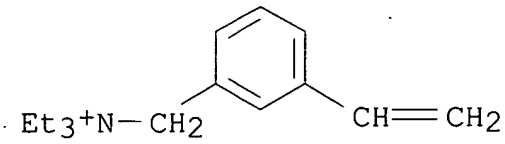
CRN 1075-49-6
CMF C9 H8 O2

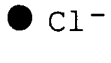


RN 252721-97-4 HCA
CN Benzenemethanaminium, 3-ethenyl-N,N,N-triethyl-, chloride, polymer with 4-ethenylbenzoic acid and 4-ethenyl-N,N,N-triethylbenzenemethanaminium chloride (9CI) (CA INDEX NAME)

CM 1

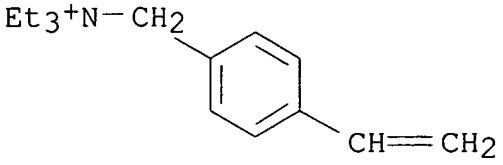
CRN 91277-26-8
CMF C15 H24 N . Cl

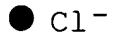




CM 2

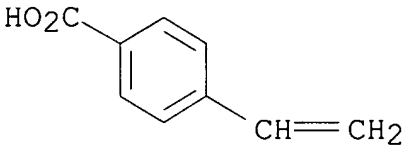
CRN 14350-43-7
CMF C15 H24 N . Cl





CM 3

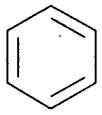
CRN 1075-49-6
CMF C9 H8 O2

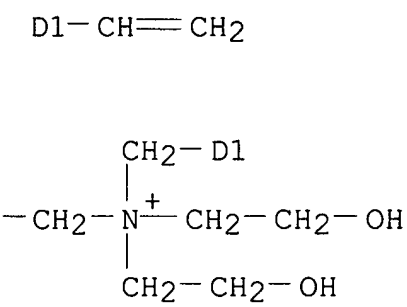


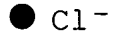
RN 263711-33-7 HCA
CN Benzenemethanaminium, ar-ethenyl-N,N,N-tris(2-hydroxyethyl)-, chloride, polymer with 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 121122-37-0
CMF C15 H24 N O3 . Cl
CCI IDS

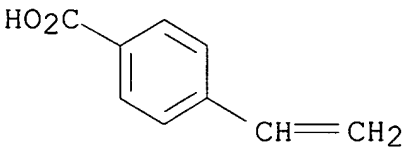






CM 2

CRN 1075-49-6
CMF C9 H8 O2



IC ICM G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **IR** laser **sensitive** material planog **printing plate** prepn
IT Photoimaging materials
(**IR** laser-**sensitive**; for planog. **printing plate** prepn.)
IT **Lithographic** plates
(planog.; **IR** laser-**sensitive** photoimaging materials for prepn. of)
IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 69415-30-1
117283-53-1, Victoria Pure Blue BOH 1-naphthalenesulfonate

154924-50-2 **214279-68-2**
(**IR** laser-**sensitive** photoimaging materials for planog. **printing plate** prepn. contg.)

IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
(prepn. and reaction in prepg. polymers for **IR** laser-**sensitive** photoimaging materials for planog. **printing plate** prepn.)

IT 124996-93-6P, Acrylonitrile-ethyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer **220227-02-1P** **252721-97-4P** **263711-33-7P**
(prepn. and use in **IR** laser-**sensitive** photoimaging materials for planog. **printing plate** prepn.)

L40 ANSWER 9 OF 10 HCA COPYRIGHT 2006 ACS on STN

130:318614 **IR** laser-**sensitive** positive photoimaging material for offset **printing plate** preparation.
Miyake, Hideo; Kawauchi, Ikuo (Fuji Photo Film Co., Ltd, Japan).
Eur. Pat. Appl. EP 909657 A2 **19990421**, 56 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW.
APPLICATION: EP 1998-119634 19981016. PRIORITY: JP 1997-285754 19971017; JP 1997-313778 19971114.

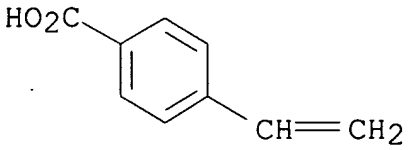
AB The title photoimaging material comprises a substrate, a layer (A) contg. no less than 50 wt.% of a copolymer which contains, as a copolymn. component, no less than 10 mol% of at least one of the monomers A-1, A-2, and A-3, wherein A-1 is a monomer having in the mol. a sulfonamido group wherein at least one hydrogen atom is linked to a nitrogen atom, A-2 is a monomer having in the mol. an active imino group represented by the formula -CONHSO2-, and A-3 is a monomer selected from acrylamide, methacrylamide, acrylates, methacrylates, and hydroxystyrene, which resp. have a phenolic hydroxyl group, and a layer (B) contg. no less than 50 wt.% . of an aq. alkali soln.-sol. resin having a phenolic hydroxyl group. The layers A and B are laminated on the substrate in that order. At least the layer B contains a compd. which generates heat upon absorbing IR laser light. The photoimaging material exhibits excellent stability of sensitivity with regard to concn. of a developing soln.

IT **28391-39-1**
(**IR** laser-**sensitive** pos. photoimaging materials for offset **printing plate** prepn. contg.)

RN 28391-39-1 HCA
CN Benzoic acid, 4-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1075-49-6
CMF C9 H8 O2



IC ICM B41M005-36
ICS B41C001-10; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST IR pos photoimaging material **lithog** plate
IT Photoimaging materials
(IR, pos.; for offset **lithog.** plate prepn.)
IT **Lithographic** plates
(offset; **IR** laser-**sensitive** pos. photoimaging materials for prepn. of)
IT 80-09-1 85-43-8 91-04-3, 2,6-Bis(hydroxymethyl)-p-cresol 104-15-4, uses 127-63-9 1328-54-7, Oil Blue #603 3584-23-4 5303-25-3, Dodecyl stearate 13249-99-5 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer **28391-39-1** 28934-28-3, p-Cresol-formaldehyde-phenol copolymer 51241-17-9 62814-37-3, N-(p-Aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 68584-99-6, Acetone-pyrogallol copolymer 1,2-naphthoquinonediazido-5-sulfonate 69415-30-1 85568-56-5, Megafac F-177 117283-53-1 124737-97-9 134127-48-3 137909-39-8 223561-66-8 223561-68-0
(**IR** laser-**sensitive** pos. photoimaging materials for offset **printing plate** prepn. contg.)
IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide
(prepn. and reaction in prepg. resins for **IR** laser-**sensitive** pos. photoimaging materials for offset **printing plate** prepn.)
IT 203179-80-0P, N-(p-Hydroxyphenyl)methacrylamide-ethyl methacrylate copolymer 223561-59-9P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate copolymer 223561-61-3P, Acrylonitrile-N-(p-aminosulfonylphenyl)acrylamide-methyl methacrylate copolymer 223561-63-5P, Acrylonitrile-methyl methacrylate-N-(p-toluenesulfonyl)acrylamide copolymer
(prepn. and use in **IR** laser-**sensitive** pos. photoimaging materials for offset **printing plate** prepn.)
IT 63-74-1, p-Aminobenzenesulfonamide 79-10-7, 2-Propenoic acid,

reactions 79-41-4, reactions 541-41-3, Ethyl chloroformate
(reaction in prepg. resins for **IR** laser-**sensitive** pos. photoimaging materials for offset **printing plate** prepn.)

L40 ANSWER 10 OF 10 HCA COPYRIGHT 2006 ACS on STN
128:174175 Negative-working **IR-sensitive** image recording material for **lithographic printing plate**. Aoshima, Keitaro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10016423 A2 **19980120** Heisei, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-171307 19960701.

AB The recording material comprises (A) ≥1 polymer having hydroxyaryl groups in side chains, (B) a thermal crosslinking agent, (C) an acid generator, and (D) an IR absorber. Preferably, the crosslinking agent is a phenol deriv. having hydroxymethyl or alkoxymethyl connecting to ≥2 benzene rings, and the acid generator decomps. at ≥100°, and the IR absorber absorbs light at 720-1200 nm. The recording material is useful for direct platemaking by using IR laser. The recording material shows high film strength and printability.

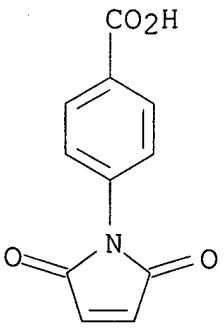
IT **202817-59-2P**
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)

RN 202817-59-2 HCA

CN Benzoic acid, 4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-, polymer with ethenylbenzene and 4-ethenylbenzoic acid (9CI) (CA INDEX NAME)

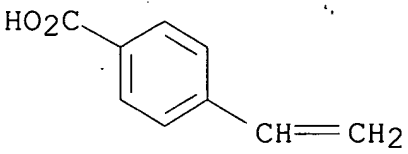
CM 1

CRN 17057-04-4
CMF C11 H7 N O4



CM 2

CRN 1075-49-6
CMF C9 H8 O2



CM 3

CRN 100-42-5
CMF C8 H8

$H_2C{=}CH{-}Ph$

IC ICM B41N001-14
ICS B41C001-055; G03F007-00; G03F007-004; G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 38
ST **IR sensitive** recording **lithog printing plate**; phenol deriv crosslinking agent **lithog** printing; acid generator **lithog printing plate**; hydroxyaryl polymer **IR sensitive** resist **lithog**
IT Crosslinking agents
Lithographic plates
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT Phenolic resins, uses
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT Polyvinyl acetals
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT Resists
(neg.-working, **IR-sensitive**; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)

IT 22371-56-8, NK 3508
(IR absorber; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 6293-66-9, Diphenyliodonium p-toluenesulfonate 10409-06-0 22040-25-1 54769-57-2 56530-39-3 130536-25-3 130558-04-2 175878-37-2 202817-62-7
(acid generator; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 531-18-0, Hexamethylolmelamine 25085-75-0, Bisphenol A-formaldehyde copolymer
(crosslinking agent; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 161679-94-3P 161679-95-4P 161679-98-7P 185502-11-8P 185502-14-1P 185502-15-2P 197087-73-3P 197087-74-4P
(crosslinking agent; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 162846-57-3P
(crosslinking agent; neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 173786-82-8DP, hydrolyzed 202817-57-0P 202817-58-1P **202817-59-2P** 202817-61-6P
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)
IT 50-00-0, Formaldehyde, reactions 67-56-1, Methanol, reactions 110726-28-8, Trisp PA
(neg.-working **IR-sensitive** image recording material for **lithog. printing plate** with high **printability**)

=> D HIS L41-

FILE 'REGISTRY' ENTERED AT 14:48:18 ON 13 SEP 2006
E VINYLBENZOIC ACID/CN
L41 1 S E3
L42 43 S 30551-66-7/CRN

FILE 'HCA' ENTERED AT 14:49:04 ON 13 SEP 2006
L43 79 S L42
L44 5 S L43 AND L23
L45 3 S L43 AND L24

L46 2 S L43 AND L25
L47 8 S (L44 OR L45 OR L46) NOT (L39 OR L40)
L48 8 S L47 AND 1840-2002/PRY,PY

=> D L48 1-8 CBIB ABS HITSTR HITIND

L48 ANSWER 1 OF 8 HCA COPYRIGHT 2006 ACS on STN
140:414980 Production of developers for imagewise-exposed presensitized **lithographic** plates. Toyama, Tadao (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004145292 A2 20040520, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-293816 20030815. PRIORITY: JP 2002-287150 20020930.

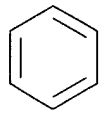
AB In prodn. of the developers, time-course change in elec. cond. of developers (A) upon continuing development and addn. of replenishment developers (B) during the running is monitored until the ratio of B to the sum of A and B becomes 100% so as to det. the final elec. cond. (E) as indicator of developers having acceptable activity, and then new undiluted developers are produced with adjusting their cond. as the same values as E. When the elec. cond. of the developers is approx. the same value as E, the developers can be continuously used.

IT **688803-88-5P**
(in recording layer; prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

RN 688803-88-5 HCA
CN Benzenemethanaminium, ar-ethenyl-N,N,N-triethyl-, chloride, polymer with ethenylbenzoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 51241-16-8
CMF C15 H24 N . Cl
CCI IDS



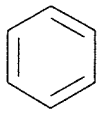
D1—CH═CH$_2$

$Et_3{}^+N$—CH_2—D1

● Cl^-

CM 2

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS



D1—CH═CH$_2$

D1—CO_2H

IC ICM G03F007-32
ICS G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **lithog printing plate** development
supply replenisher activity monitoring
IT Phenolic resins, processes
(in recording layer; prodn. of developer for imagewise-exposed presensitized **lithog**. plates used with supplying

replenisher)

IT Electric conductivity
(of developers, monitoring of; prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

IT **Lithographic** plates
(prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

IT 50-70-4, D-Sorbitol, uses 866-84-2, Tripotassium citrate 1310-58-3, Potassium hydroxide, uses 1312-76-1, Potassium silicate 53694-15-8, Polyethylene glycol sorbitol ether 61792-09-4, Diethylenetriaminepenta(methylenephosphonic acid) pentasodium salt
(developer replenisher component; prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

IT **688803-88-5P**
(in recording layer; prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
(in recording layer; prodn. of developer for imagewise-exposed presensitized **lithog.** plates used with supplying replenisher)

L48 ANSWER 2 OF 8 HCA COPYRIGHT 2006 ACS on STN

126:164302 Manufacture of waterless presensitized **lithographic** plate showing high sensitivity. Tsucha, Mitsumasa; Sato, Hironori; Kondo, Shunichi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08328240 A2 **19961213** Heisei, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-132034 19950530.

AB The plate includes a photosensitive layer and a silicone rubber layer successively laminated on a support, where the photosensitive layer is prepd. by applying a coating soln. contg. (A) a compd. having ≥2 enol (thio)ethers of R1(R2)C:C(R3)O or R1(R2)C:C(R3)S (R1-3 = H, alkyl, aryl), (B) a linear macromol. compd. having an acid group and OH or SH, and (C) a photoacid generator decompg. with active-beam irradn. or radiation, and heating at 60-150° for 30 s-10 min.

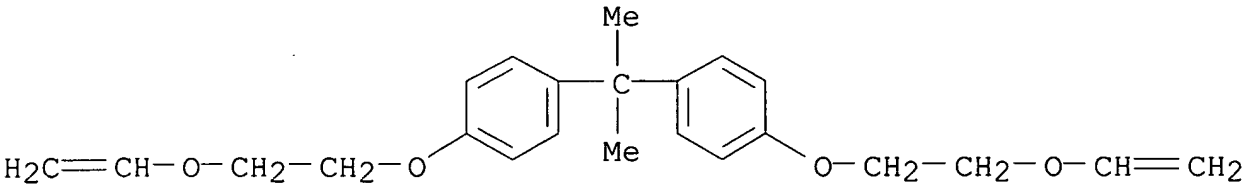
IT **186819-14-7P**
(photosensitive layer; manuf. of waterless presensitized **lithog.** plate contg. enol ether-crosslinked photoresist layer)

RN 186819-14-7 HCA

CN Benzoic acid, ethenyl-, polymer with ethyl 2-propenoate, 1,1'-(1-methylethylidene)bis[4-[2-(ethenyloxy)ethoxy]benzene] and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

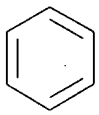
CM 1

CRN 52411-04-8
CMF C23 H28 O4



CM 2

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS

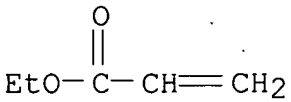


D1—CH═CH$_2$

D1—CO$_2$H

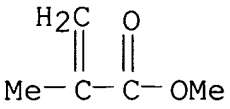
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-00
ICS G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST waterless presensitized **lithog** plate sensitivity; silicone rubber coating presensitized **lithog** plate; enol ether crosslinking photoresist **lithog** plate

IT Silicone rubber, preparation
(di-Me, Me hydrogen; manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist layer)

IT Polyvinyl butyrals
(manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist layer)

IT **Lithographic** plates
(presensitized; manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist layer)

IT 557-75-5D, Ethenol, polymers with vinylphenol ethers, polyvinyl butyrals, and vinyl phthalate, reactions 31900-57-9D, Dimethylsilanediol homopolymer, vinyl-terminated 34444-82-1D, polymers with vinylphenol ethers, vinyl alc., and vinyl phthalate 59942-04-0, Dimethylsiloxane, vinyl-terminated 156118-35-3D, Dimethylsilanediol-methylsilanediol copolymer, trimethylsilyl-terminated
(in prepn. of silicone rubber layer for waterless presensitized **lithog**. plate)

IT 42573-57-9 71255-80-6 84938-94-3 124737-97-9 137308-86-2 141425-69-6 186819-12-5
(photoacid generator; manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist layer)

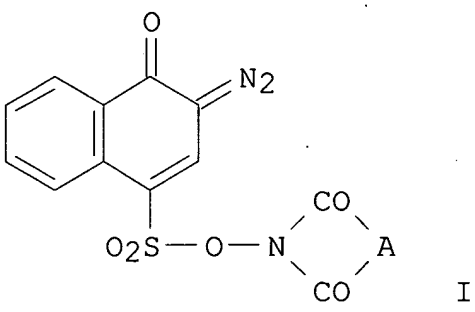
IT 52411-04-8DP, polymers with polyvinyl butyrals, vinyl alc., and vinyl phthalate 160508-63-4P 160508-65-6P 160508-67-8P 160508-71-4P 186819-13-6P **186819-14-7P** 186819-15-8P 186819-16-9P 186819-17-0P 186819-18-1P 186819-20-5P
(photosensitive layer; manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist layer)

IT 156118-35-3P, Dimethylsilanediol-methylsilanediol copolymer
(rubber, coating layer; manuf. of waterless presensitized **lithog**. plate contg. enol ether-crosslinked photoresist

layer)

L48 ANSWER 3 OF 8 HCA COPYRIGHT 2006 ACS on STN
125:100167 Positive type light-sensitive composition for resist patterning. Kondo, Shunichi; Sato, Hironori; Abe, Yukio (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08062844 A2 **19960308** Heisei, 32 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-193356 19940817.

GI



I

AB The compn. comprises (a) a 3-dimensionally crosslinkable resin contg. a structural unit OCR1R2O, OCR1R2S, and/or SCR1R2S and (b) a compd. generating an acid by active light beam or radiation. The acid generator may be o-quinonediazide I (A = divalent aliph. or arom. group). The compn. is useful for manuf. of **lithog.** plates, semiconductor circuits, etc.

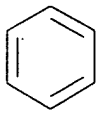
IT **178696-92-9**
(pos. type light-sensitive compn. for resist patterning)

RN 178696-92-9 HCA

CN Benzoic acid, ethenyl-, polymer with ethyl 2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS

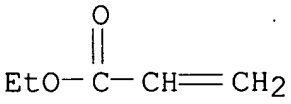


D1— CH═ CH_2

D1— CO_2H

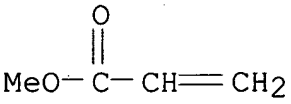
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 96-33-3
CMF C4 H6 O2



IC ICM G03F007-039
ICS G03F003-10; G03F007-00; G03F007-004; G03F007-022; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76
IT 25133-97-5, Ethyl acrylate-methacrylic acid-methyl methacrylate copolymer 141655-30-3, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid copolymer 172141-06-9D, cyclic acetals with butyraldehyde 178696-91-8 **178696-92-9** 178696-93-0
(pos. type light-sensitive compn. for resist patterning)

L48 ANSWER 4 OF 8 HCA COPYRIGHT 2006 ACS on STN
121:95626 Temperature-**sensing** variably **heat**
-reflecting multilayer films. Ueda, Kenji (Dai Nippon Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 06011608 A2 **19940121** Heisei, 11 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1992-170837 19920629.

AB The film comprises an alternating multilayer of a 1st and a 2nd polymer having n = n1(T) and n2(T) [n1(T) > n2(T)] and the glass transition temp. Tg = Tg1 and Tg2 (Tg1 > Tg2), resp., wherein when the environmental temp. T = Ta and Tb (Ta < Tg2 and Tg1 > Tb > Tg2), [n1(Ta) - t2(Ta)] < [n1(Tb) - n2(Tb)], since -dn/dT (T < Tg) < -dn/dT (T > Tg); and hence the film has a greater reflectivity at Tb than that at Ta. The film is suited for use on a window for having a greater heat-reflection in summer and a greater heat-transmission in winter.

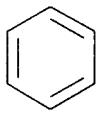
IT **9046-31-5**, Polyvinyl benzoic acid
(temp.-dependent variably heat-reflecting polymer multibilayers from)

RN 9046-31-5 HCA

CN Benzoic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS



D1—CH═CH$_2$

D1—CO$_2$H

IC ICM G02B005-18

CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 9003-01-4, Polyacrylic acid **9046-31-5**, Polyvinyl benzoic acid 25087-21-2, Poly(o-methyl styrene) 25249-16-5, Polyhydroxy ethyl methacrylate 156645-75-9 156645-76-0
(temp.-dependent variably heat-reflecting polymer multibilayers from)

L48 ANSWER 5 OF 8 HCA COPYRIGHT 2006 ACS on STN
118:29733 Top surface imaging systems utilizing poly(vinylbenzoic acid) and its ester. Ito, Hiroshi (IBM Res. Div., Almaden Res. Cent., San Jose, CA, 95120, USA). Journal of Photopolymer Science and Technology, 5(1), 123-40 (English) **1992**. CODEN: JSTEEW. ISSN: 0914-9244.

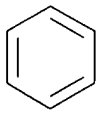
AB Applications of poly(p-vinylbenzoic acid) (I) and its tert-Bu ester (II) (opaque <300nm), to deep-UV top surface imaging (TSI) systems were studied. A single-layer neg. TSI based on acid catalyzed deprotection of polymer II using triphenylsulfonium hexafluoroarsenate and triflate, vapor phase silylation using dimethylaminotrimethylsilane and O RIE/development gave the thermally stable 0.5 μm line/space images. The I is useful as a strippable bottom layer in an all-dry bilayer, pos. TSI system and, in conjunction with poly(4-trimethylsilylphthalaldehyde), and triphenylsulfonium triflate as thermally-developable top resist.

IT **9046-31-5**, Poly(vinylbenzoic acid)
(**lithog**. top-surface imaging system for deep-UV exposure using photoresists contg.)

RN 9046-31-5 HCA
CN Benzoic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS



D1—CH═CH$_2$

D1—CO$_2$H

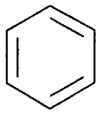
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist polyvinylbenzoic acid butyl ester **lithog**
IT 57900-42-2, Triphenylsulfonium hexafluoroarsenate
(**lithog**. top-surface imaging system for deep-UV exposure using photoresist contg. poly(vinylbenzoic acid) Bu

ester and)
IT **9046-31-5**, Poly(vinylbenzoic acid) 91380-16-4
(**lithog.** top-surface imaging system for deep-UV exposure using photoresists contg.)
IT 112265-14-2, Poly(4-trimethylsilylphthalaldehyde)
(**lithog.** top-surface imaging system for deep-UV exposure using poly(vinylbenzoic acid)-based photoresists and)
IT 2083-91-2, Dimethylaminotrimethylsilane
(silylation agent, for top-surface **lithog.** imaging system for deep-UV exposure using photoresists based on poly(vinylbenzoic acid) or its Bu ester)

L48 ANSWER 6 OF 8 HCA COPYRIGHT 2006 ACS on STN
112:149087 Electrophotographic material for **lithographic** plate preparation. Kato, Eiichi; Ishii, Kazuo (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 333415 A2 **19890920**, 40 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1989-302462 19890314. PRIORITY: JP 1988-58256 19880314; JP 1988-88917 19880413.
AB An electrophotog. material suited for **lithog.** plate prepn. comprises an elec. conductive support and ≥1 photoconductive layer contg. photoconductive ZnO particles, a binder resin selected from alkyd resin, silicone resins, epoxy resins, polyesters, poly(vinyl butyrals), methacrylate copolymers, acrylate copolymers, and vinyl acetate polymer, and natural or synthetic hydrophilic resin grains having an av. grain diam. which is the same as or smaller than the max. grain diam. of the ZnO particles. The electrophotog. material is processed by an automatic **printing plate**-making machine to form a toner image and treated with an oil-desensitizing soln. for rendering hydrophilic the nonimage area to give a **lithog. plate** which provides **prints** of good image quality, particularly free background stains, from the start of printing, thus reducing loss of prints.
IT **9046-31-5**
(zinc oxide electrophotog. compns. contg., for prepn. of **lithog.** plates)
RN 9046-31-5 HCA
CN Benzoic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS



D1—CH═CH$_2$

D1—CO$_2$H

IC ICM G03G013-28
ICS G03G005-05
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog material **lithog** plate prepn; zinc oxide electrophotog **lithog** plate; hydrophilic resin electrophotog **lithog** plate
IT Electrophotographic photoconductors
(contg. zinc oxide and binder resins and hydrophilic resin grains for **lithog**. plate prepn.)
IT **Lithographic** plates
(zinc oxide electrophotog. compns. contg. hydrophilic resin grains for prepn. of)
IT 1314-13-2, Zinc oxide, uses and miscellaneous
(electrophotog. materials contg. hydrophilic resin grains and, for **lithog**. plate prepn.)
IT 9003-01-4, Polyacrylic acid 9003-04-7 **9046-31-5** 9086-70-8 25322-68-3 28062-47-7 37291-07-9D, Starch-acrylonitrile copolymer, sapond. 57486-24-5, Aquaprene L 710 105187-85-7, KI Gel 201K 108688-17-1, Sumikagel SP 510
(zinc oxide electrophotog. compns. contg., for prepn. of **lithog**. plates)
IT 25213-24-5 25704-18-1 27756-39-4 28062-60-4 29960-84-7 31212-98-3 51131-63-6 55031-97-5 107052-85-7 124919-84-2 125052-36-0 125120-19-6 125120-20-9 125120-21-0 125120-23-2 125120-25-4 125120-26-5 125120-27-6 125120-29-8 125120-66-3 125193-75-1 125193-77-3 127006-47-7
(zinc oxide electrophotog. materials contg., for **lithog** . plate prepn.)

L48 ANSWER 7 OF 8 HCA COPYRIGHT 2006 ACS on STN
99:13993 Photo- and **heat-sensitive** recording materials. (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58037640 A2 **19830304** Showa, 7 pp. (Japanese). CODEN:

JKXXAF. APPLICATION: JP 1981-135320 19810828.

AB A basic substance-releasing layer contg. a CO3+ ammine and/or amine complex, a chromate, and a chelating agent which shows a small visible absorption on chelation to Co3+ and a color-forming layer contg. an acidic salt formed between an oxidizable triarylmethane and a strong acid and a hexaarylbiimidazole which, by UV light absorption, acts as a photooxidizing agent for a leuco-aminotriarylmethane are combined to give a high-sensitivity photothermog. material. A redox couple composed of a polycyclic quinone which absorbs 400-500 nm light and a H donor may be used instead of the chromate salt. Thus, a poly(ethylene terephthalate) film was coated with a 8-μm thick basic substance-releasing layer contg. [Co(NH3)6](CCl3CO2)2, (NH4)2Cr2O7, and hydroxydimethylglyoxime, and then with a 8-μm thick color-forming layer contg. tris(4-dimethylamino-2-methylphenyl)methane, p-toluenesulfonic acid, and 2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole to give a photothermog. material. The material was patternwise irradiated with a fluorescent lamp for 20 s at an energy of 0.4 mW/cm2, heat-developed for 10 s at 100°, and the entire surface was exposed to UV light for 1 min to obtain an image d. of 2.0 and a background d. of 0.4.

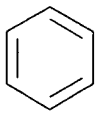
IT **81235-36-1**
(photothermog. materials contg.)

RN 81235-36-1 HCA

CN Benzoic acid, ethenyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS



D1—CH═CH2

D1—CO2H

CM 2

CRN 100-42-5
CMF C8 H8

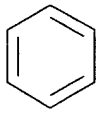
$H_2C{=}CH{-}Ph$

IC G03C001-72
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 84-11-7 95-45-4 603-48-5 1707-68-2 7789-09-5 25322-68-3 56619-18-2 59561-55-6 **81235-36-1**
(photothermog. materials contg.)

L48 ANSWER 8 OF 8 HCA COPYRIGHT 2006 ACS on STN
80:126770 Electrostatographic liquid developers. (Ricoh Co., Ltd.). Brit. GB 1342043 **19731228**, 8 pp. (English). CODEN: BRXXAA. APPLICATION: GB 1971-1179 19710111.
AB Developers were manufd. contg. toners of pigment particles coated with three-component graft copolymers. The copolymer stem was insol. in the developer org. carrier liq. and adhered to the dye pigment, one graft component was sol. in the liq. carrier to facilitate dispersal of the toner, and the second graft component was insol. in the carrier and controlled the electrostatic charge on the adherent pigment. The toner particles formed a stable emulsion with the carrier and showed good adhesive properties, allowing ready fixing to the photosensitive surface and, when used in electrophotog. offset **printing**, produced a **plate** of durability equal to those produced by the dry process. The toner had good transparency minimizing chromatic aberration and resolution deterioration, rendering the toner suitable for multicolor processes. Thus, a mixt. of polystyrene 100, lauryl methacrylate 80, and CH2:CMeCO2(CH2)2NMe2 3 g with 1 g Me2C(CN)N:NC(CN)Me2 in 65 g PhMe 10 hr at 110-20° gave a graft copolymer which was mixed with a powd. dye and ball milled 10 hr with Naphtha No. 6 to give a toner conc. A 1% dispersion of the toner in Isopar H or G gave a liq. developer giving a neg. charge. Eleven other copolymers were prepd.
IT **52292-57-6**
(graft, electrophotog. toners from pigmented, for liq. developers)
RN 52292-57-6 HCA
CN Benzoic acid, ethenyl-, polymer with ethenyl tetradecanoate, (1-methylethenyl)benzene and 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 30551-66-7
CMF C9 H8 O2
CCI IDS

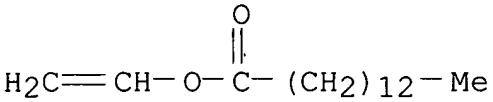


D1—CH═CH$_2$

D1—CO$_2$H

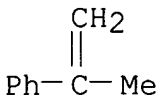
CM 2

CRN 5809-91-6
CMF C16 H30 O2



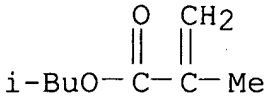
CM 3

CRN 98-83-9
CMF C9 H10



CM 4

CRN 97-86-9
CMF C8 H14 O2



IC G03G; C08F
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)
Section cross-reference(s): 35
IT 30870-67-8 51998-55-1 51998-56-2 51998-57-3 51998-58-4
51998-59-5 51998-60-8 52292-23-6 52292-53-2 52292-54-3
52292-56-5 **52292-57-6**
(graft, electrophotog. toners from pigmented, for liq. developers)